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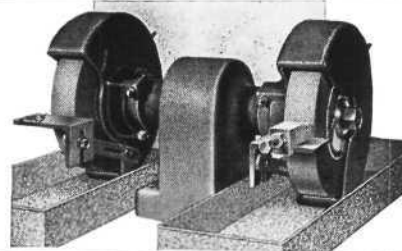
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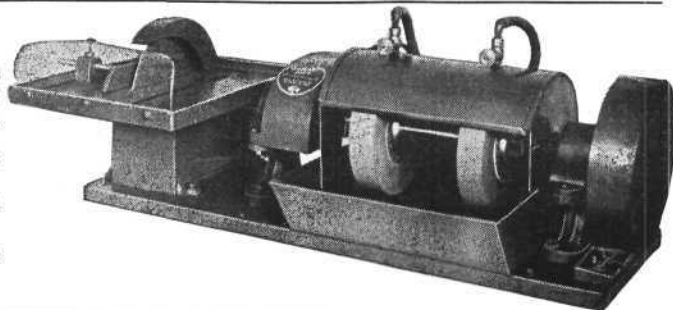
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DESERT CALENDAR

- January 31—Gold Rush Days, Wickenburg, Arizona.
- February 1-28—Special exhibit of art of the ancient peoples of Mexico and Central America. Southwest Museum, Highland Park, Calif.
- February 2—Candlemas Day ceremonial dances, San Felipe, Cochiti and Santo Domingo Pueblos, near Santa Fe, New Mexico.
- February 4-7—Seventh Annual Imperial Valley Carrot Carnival, Holtville, California.
- February 6-7—Palm Springs Annual Winter Rodeo, Palm Springs, California.
- February 7—Desert Sun Ranchers' Rodeo, Wickenburg, Arizona.
- February 7—Don's Club Travelcade to Miami Mines. From Phoenix, Arizona.
- February 12-14—Riverside Chapter, Sierra Club of Southern California trip to Death Valley. From Riverside, California.
- February 14—Don's Club Travelcade to Montezuma Castle and Tuzigoot ruins. From Phoenix, Arizona.
- February 14—Western Saddle Club Western Stampede. Phoenix, Arizona.
- February 17-22 — Riverside County Fair and National Date Festival. Indio, California.
- February 19-22—Tucson Rodeo, La Fiesta de los Vaqueros. Tucson, Arizona.
- February 20-22 — Riverside Chapter, Southern California Sierra Club knapsack trip to Borrego, Calif.
- February 20-28 — Maricopa County Fair, Mesa, Arizona.
- February 21—Desert Sun Ranchers' Rodeo, Wickenburg, Arizona.
- February 21-28—Sixth Annual Cactus Show, Desert Botanical Gardens, Phoenix, Arizona.
- February 27-March 7 — California Midwinter Fair, Imperial, Calif.



THE *Desert* MAGAZINE

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RANDALL HENDERSON, Editor
BESS STACY, Business Manager

MARGARET GERKE, Associate Editor
EVONNE RIDDELL, Circulation Manager

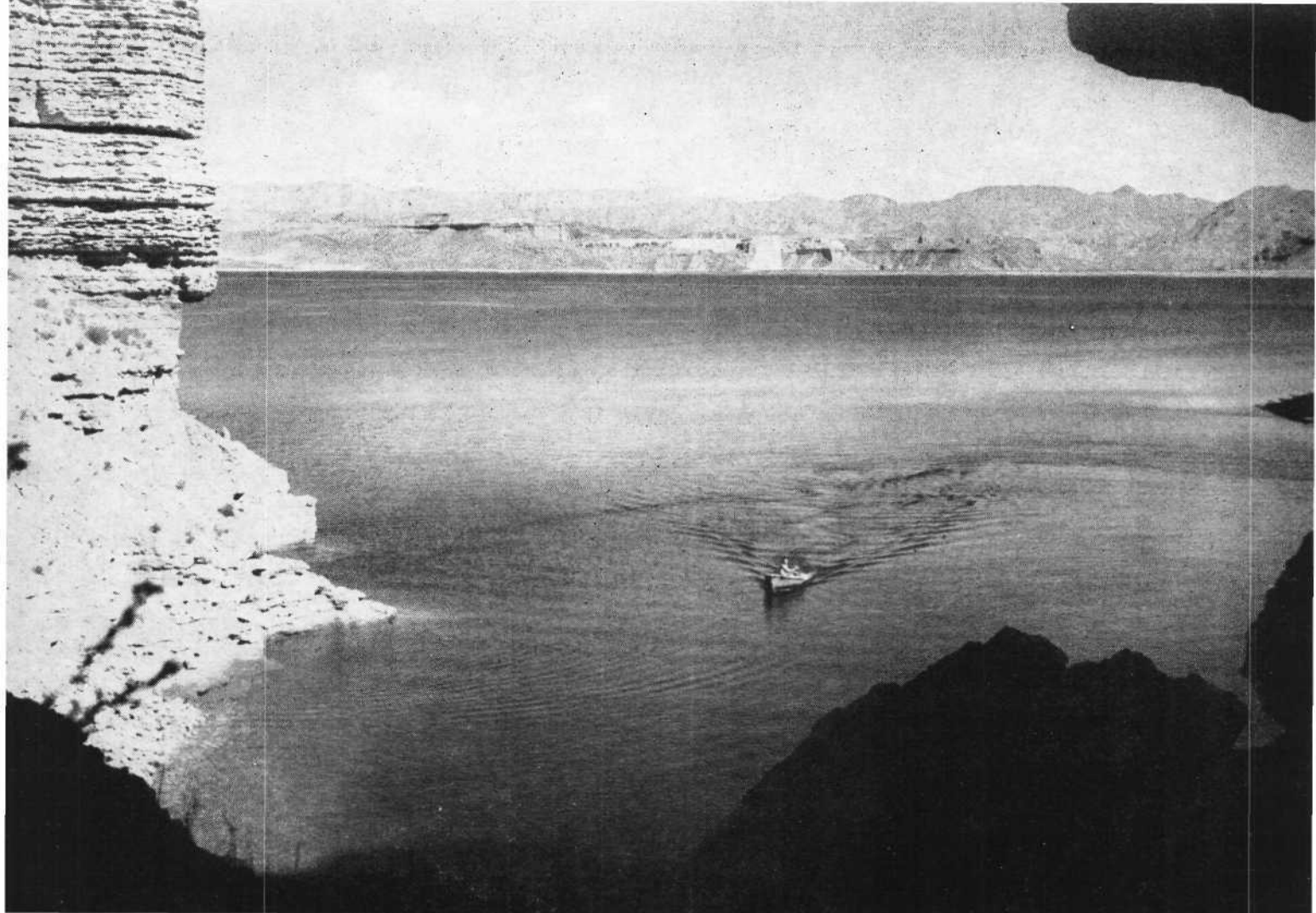
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The pattern of its wake etching Lake Mead, the "Adventurer" nears the former confluence of the Colorado and Virgin rivers, now submerged by lake waters.

Where Lake Mead Meets the Colorado

By HULBERT BURROUGHS
Photos by the author

EVER SINCE the waters of the mighty Colorado River were tamed by Hoover Dam, I had dreamed and planned of exploring the wild desert shores of the lake it created, the headwaters of Lake Mead. I had read all the exciting sagas of early Colorado River explorers — of one-armed Major Powell who, in 1869 and '70, was the first to go down the river and through the Grand Canyon; of Nevills, Stanton, the Kolbs and the other daring men who had braved the terrifying rapids of the "world's most dangerous river."

They had raced down in their tiny boats through a fantastic canyon wonderland. They had explored a few of the innumerable side canyons, but there were countless miles with no time for exploring, when every thought

was for survival in the wildly swirling rapids. Left untouched, therefore, was a vast area of rugged mesas and deep canyons where no white man — and very probably no Indian — had ever set eye or foot. For 70 years the raging muddy river served as an effective barrier to all but a mere handful of brave men who could do little more than dash fleetingly by like so much driftwood.

With the construction of Hoover Dam in Black Canyon, the wild rogue of the west suddenly found its destructive seaward flight checked for the first time in all its turbulent history. Soon the waters were backing up, creeping far back into deep and narrow canyons like miniature fiords. For 115 miles the advancing waters of the new lake worked their way up the Colorado River gorge and into the Lower Grand Canyon, engulfing beneath them many

With the construction of Hoover Dam, a whole new desert canyon wilderness became accessible to the explorer, as the reaching fingers of Lake Mead covered treacherous rapids and stretched into isolated side canyons to make them navigable by dinghy or rubber raft. Here is the story of one excursion to the rarely-visited headwaters of Lake Mead — an adventure filled with excitement, beauty and danger. More recently the upper portion of Lake Mead, where the author had this harrowing experience, has been filled in with silt from the river, leaving only a narrow channel.

of the vicious rapids that had taken the lives of more than one river explorer.

And so a practically unexplored wilderness was opened for less daring but equally eager modern vacation adventurers — such as Charles Shelton and I.

Our adventure started very early on an April morning at Pierce Ferry, Arizona, named for a man who ran a hand operated ferry across the Colorado River in the old days. Almost at the foot of the Grand Wash Cliffs, Pierce

Ferry is the last jumping-off place for the lower Grand Canyon.

By 7:15 of a bright clear morning our outboard motor was hitting on both cylinders and despite the load of two not-too-small men, two bedrolls, four five-gallon gas cans, oil, a week's food supply, fishing gear, life preservers, three cameras and film, and a hundred and one miscellaneous odds and ends, our 12-foot dinghy, *Adventurer*, glided easily over the still surface of Lake Mead straight for a mighty gash in the Grand Wash Cliffs.

This tremendous escarpment — rising abruptly from the low desert hills — marks the beginning of the Grand Canyon, or rather its western terminus where Colorado River waters finally break free after tortuous confinement for more than 300 miles.

Within a mile we had passed the portals of the Grand Wash Cliffs, where Major Powell finally left the Grand Canyon and experienced his final encounter with truly bad rapids, and were at last in the Grand Canyon.

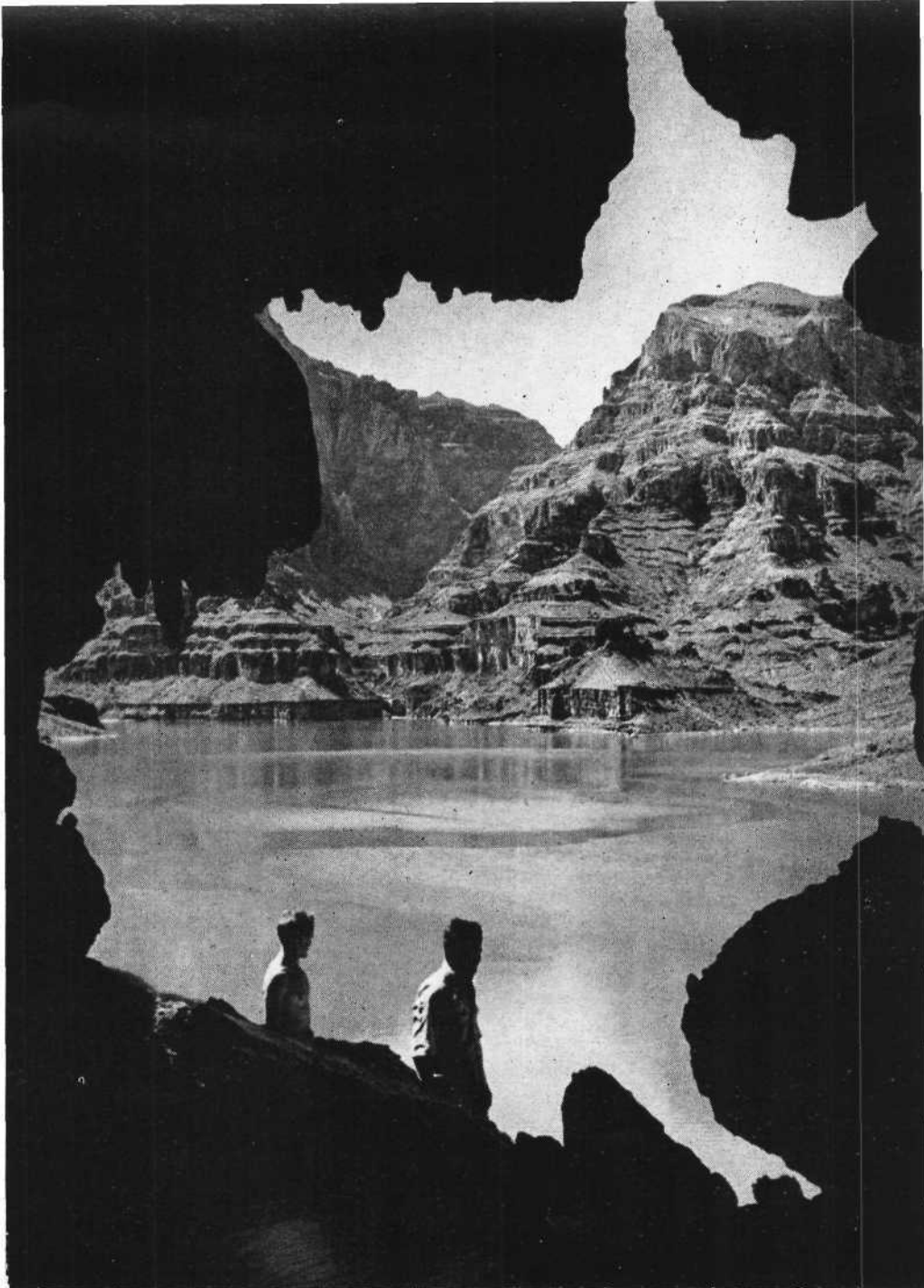
A few miles above Pierce Ferry — it was difficult to estimate distances in our boat — we sighted the cliffs that I was almost certain held Rampart Cave, ancient lair of the extinct ground sloth. Some years ago I had been here, but the myriad cliff walls looked surprisingly alike. My memory, however, proved good and we spotted the tiny black hole high in the cliffs on the south side of the lake.

There was a poor landing here, but we tied the *Adventurer* as best we could so she would not chafe against the rocks. A rude trail zigzagged up the long talus.

My muscles were soft and I loafed along the steep trail taking many pictures. Charles had reached the cave when I started up the last steep ridge.

The National Park Service, we found, had installed a heavy iron gate and padlock at the cave entrance. A good thing, we agreed, even though we were deprived the thrill of exploring the long dark passageways. Only a few test diggings had been made at that time in Rampart Cave, so it was virtually untouched. Without the iron bars, vandals and pot-hunters would soon have taken their selfish toll.

In 1937 I had the good fortune to accompany a Carnegie Institute-Pomona College group to Rampart Cave. NPS Geologist Edward Schenk and Willis Evans, a Pitt River Indian and discoverer of the cave the year before, guided us through. The cave runs back into the mountain more than 200 feet. I had seen the test pit where several skeletons were found — some with hair and hide still in place, well-



From a travertine cave looking south across Lake Mead to Emery Falls in canyon to left.

preserved in the powder-dry air of the desert.

Jerome D. Laudermilk, research chemist of Pomona College who led the expedition, remarked that everything was so well-preserved that he was continually conscious of a feeling that he might bump into a live sloth somewhere in the cave. After completing his research work on the ground sloth, Jerry intimated to me, unofficially, that maybe the sloth hasn't been dead as long as we think — perhaps a few hundred years instead of thousands.

Back once again to the boat we detected what appeared to be several large caves across the lake and not very high up in a steep rough travertine formation. Running in close to the shore we saw that the cliffs were

scalable, so we moored the *Adventurer* and unlimbered our heavy artillery of cameras. Two hundred feet up the sharp rocks we found several caves which appeared never before to have been entered — at least in modern times. The interiors were pitch black, so I returned to the boat for a flashlight. Many stalactites and stalagmites and much undisturbed dust and bat guano were the sole occupants. No footprints disturbed the deep powdery dust on the floor.

Another half mile or so up lake on the south side is Muav Cave, another lair of the ancient ground sloth. The view of the lake from here is magnificent and well worth the short but steep hike.

On up the mighty Grand Canyon. The cliffs must be fully a mile high



Morning catch of bass and crappie in Iceberg Canyon is proudly displayed by Charles Shelton.



Log jam extending across the lake and about 300 feet upstream. Author at motor. Photo by Charles Shelton.

here. For the photographer there is a picture in almost every direction. The color of the water had changed to a sinister brown—a constant reminder of the Colorado River not so far ahead.

By four o'clock, after several exploratory stops, we had progressed probably two miles. The shadows had grown deeper with the water taking

on an ever more ominous color—an unlovely dirty brown.

We made a remarkable find just before dark that night—the front hoof and foreleg of a very small horse or other equine. The hoof was no larger than a fifty-cent piece. Whether it was one of the breed of famous midget horses claimed to have been found on an isolated mesa of the Grand Canyon

or just a baby wild burro, we could not tell. Later I showed it to Jerry Laudermilk. He thought it quite a find and seemed convinced from the bone structure that it was from an adult equine.

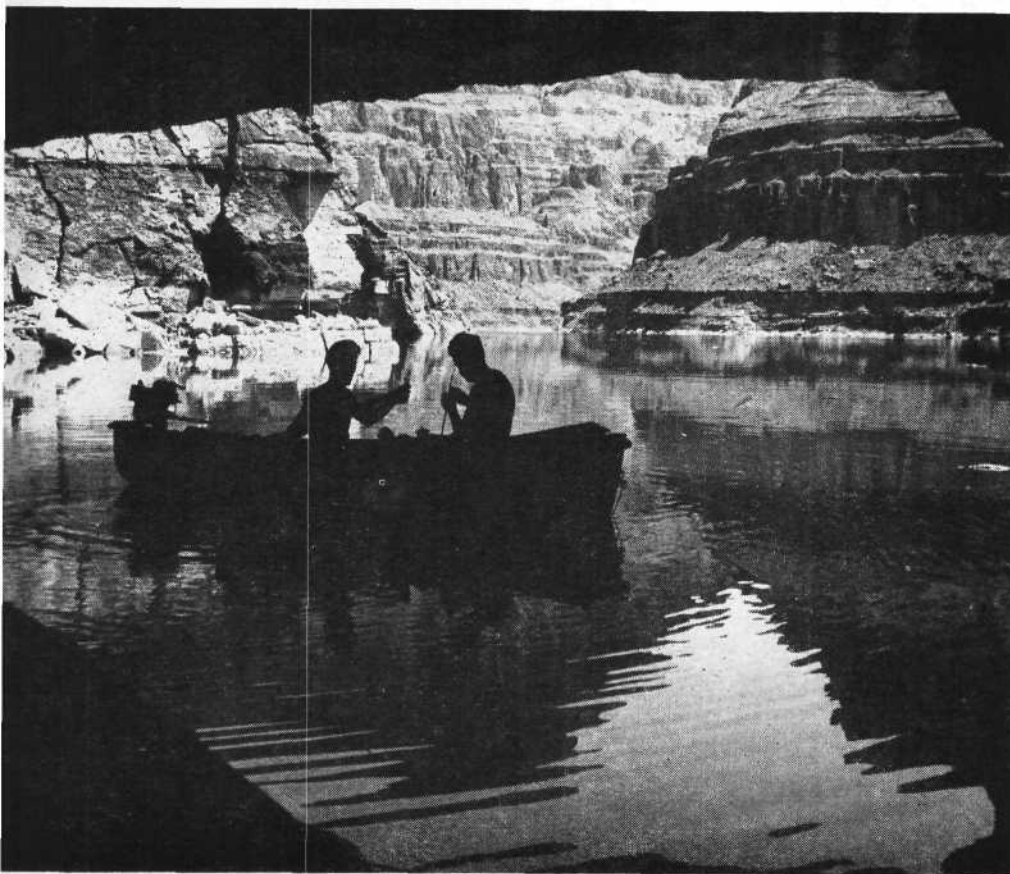
In checking over the distance we had come up the lake, we estimated that we might be near famous Separation Point. It was there in 1870 that three of Major Powell's men left the expedition and climbed out over the cliffs to the mesa above. Heading for civilization in Utah they were overtaken and killed by marauding Indians.

Most of the following day we spent exploring what we named Midget Horse Canyon. Although many tracks and droppings were seen we saw no live animals. It was nearly four in the afternoon when we resumed the up-lake journey. As later events were to prove, we were foolhardy to push forward into unknown waters with little more than an hour and a half of good daylight remaining. But our eagerness to see new country thrust from our thoughts any idea of caution.

Deep in this immense Grand Canyon where the Colorado once roared all was quiet save for the sound of our motor. It was now well after five and for us in the shadowy canyon the sun had already set. The water had become very dirty, heavily laden with silt. The Colorado was not far ahead. We were approaching the extreme upper limits of Lake Mead. Another quarter of a mile and we felt a distinct current.

Swinging around the next bend we were suddenly confronted by a log jam of driftwood extending completely across the lake—now only about a hundred yards wide. Our spirits fell. It looked like an effective obstacle to our upstream trip.

Time out for lunch and some fishing in the mouth of a grotto under overhanging Grand Canyon cliffs. Upstream is Muav cave, explored by the author and his companion. On return trip, they used this grotto as sanctuary from a sudden and violent storm.





The 12-foot dinghy "Adventurer" and Johnson outboard motor in which the 7-day trip was made from Pierce Ferry to the headwaters of Lake Mead.

The tangled mass, about 300 feet in width, was in constant motion. A strong eddy moving it slowly about gave the distinct impression that it was a living thing. Beyond was more open water as far as we could see. We decided to attempt to force our way through. With the motor shut off and tipped forward to raise the propeller clear of the driftwood, we paddled directly into the thick of the jam. The logs parted as the bow slowly cleaved its way upstream. Although the driftwood immediately closed in behind us and gave us a feeling of momentarily being trapped, we soon worked our way to open water beyond.

The current was now much more pronounced, but we moved easily upstream. The late afternoon shadows again imparted that strange sense of mystery and a violent exciting beauty to the towering cliffs. Somehow they seemed closer and more menacing in the waning light.

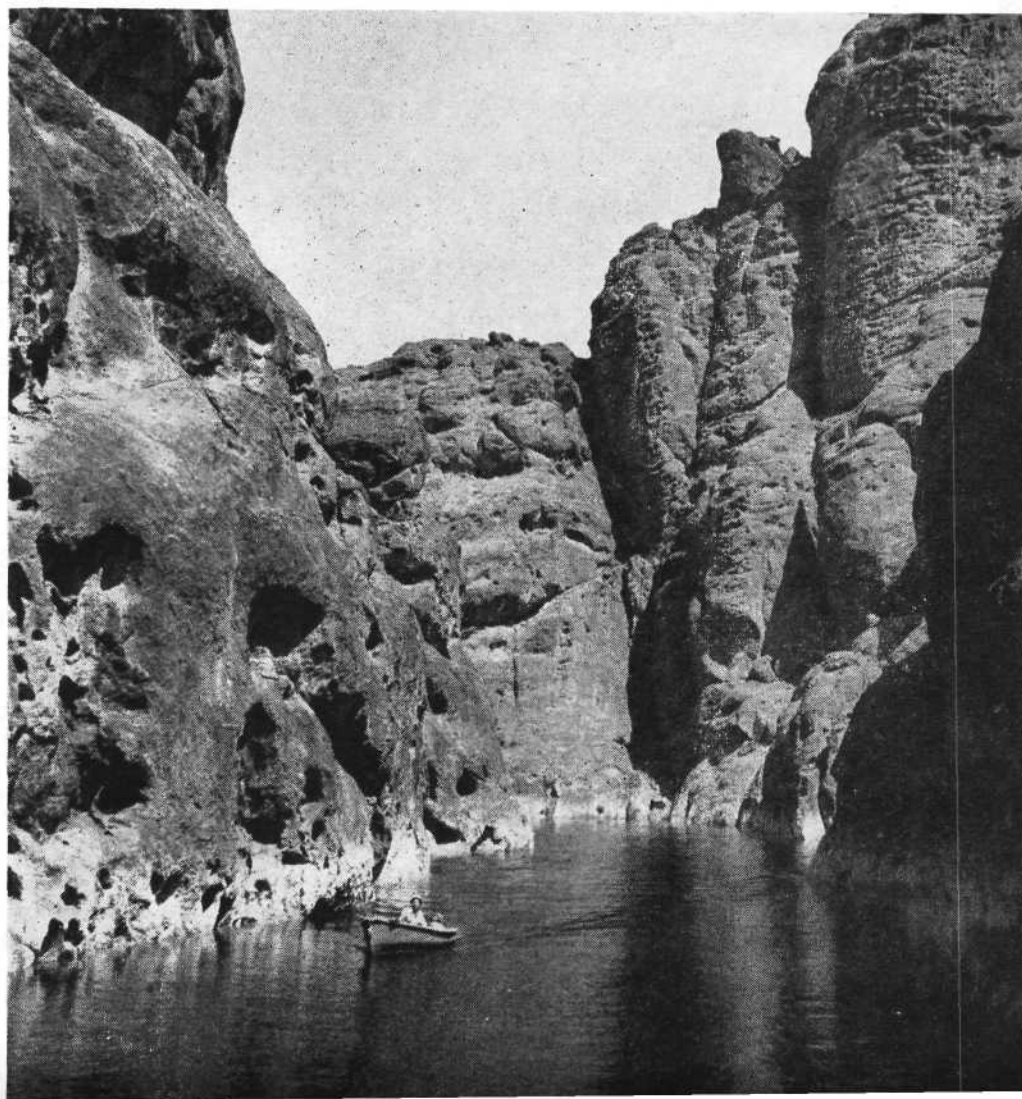
In the excitement of adventure we had momentarily forgotten that it was long past time for camp, if we intended to make one before dark. On the north bank a hundred yards ahead Charles spotted a likely looking canyon where we might find a sandy wash. But it proved too rocky. We turned upstream again. In midchannel the motor suddenly faltered and strained. There was a moment of confusion, a violent wracking of the motor and the *Adventurer* came to an abrupt stop.

A half hour before dark we were aground on a submerged silt bed. The propeller had plowed deep into the muck and was wedged tight.

Charles thrust an oar over the side. The water was less than a foot and a half deep. He tried to push us off the bar, but the oar became imbedded in the sticky ooze. It took all his strength

even to pull it loose. I attempted to tilt the motor out of the water but the propeller was firmly imbedded in the infernal stuff. We next slipped both oars in place and while one of us rowed the other rocked the boat in an effort to dislodge it. It would not budge.

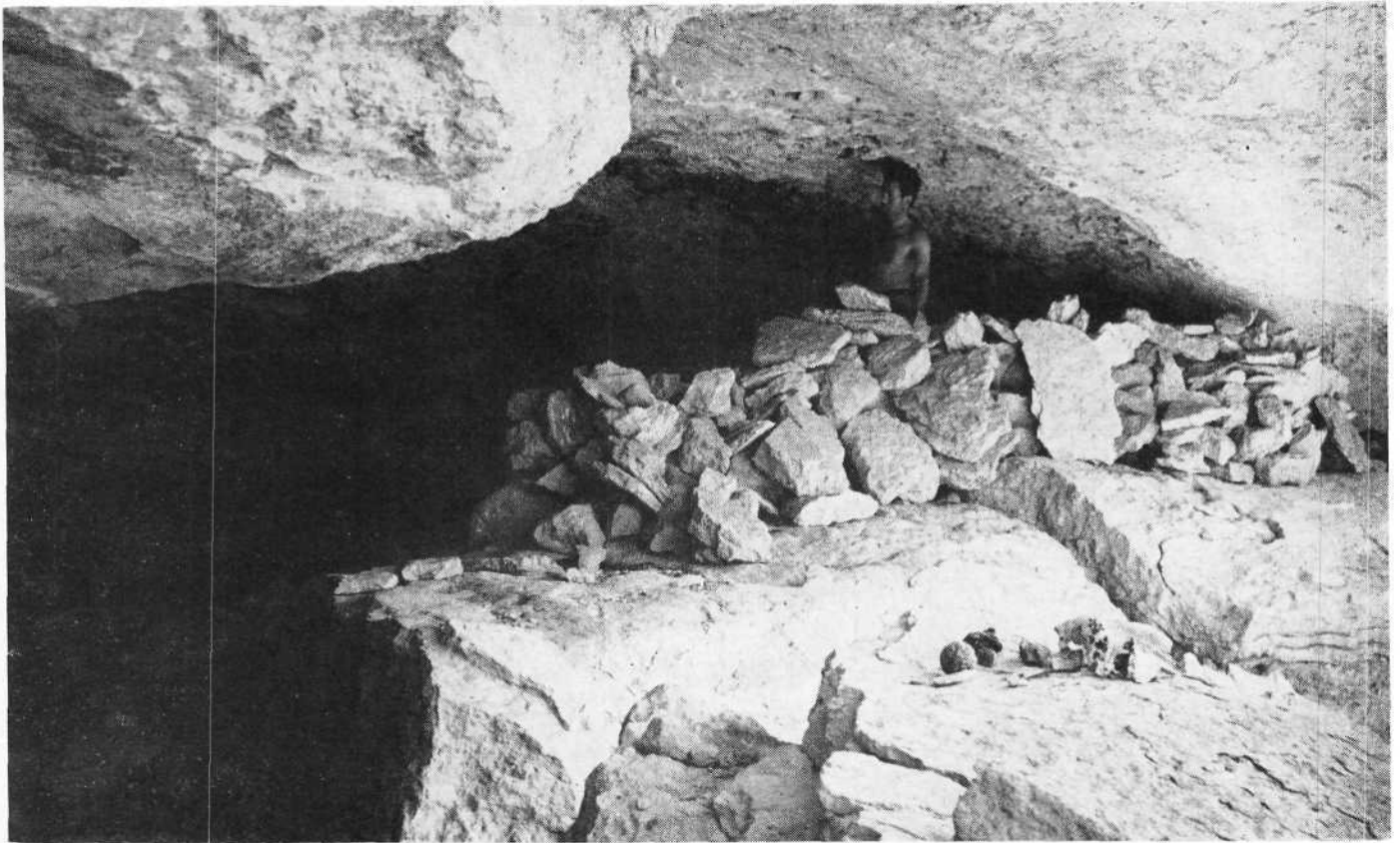
The pair explored many of the fascinating side canyons, the deep gorges of which have been inundated by the probing waters of Lake Mead, backing up behind Hoover Dam.



We thrust an oar into the silt close to the boat and by leverage tried to pry loose. We succeeded only in breaking the oar.

Darkness was enveloping us. Already it was difficult to see detail in the massive cliffs around us. The night air was warm and ominously quiet. But from far upstream in the direction of the Colorado to the east we saw a flash of light and a few seconds later the faint muffled roll of thunder reverberated from the canyon walls. Heavy storm clouds were faintly visible in the lesser darkness of the eastern sky. We said little but I know what we both felt. A heavy storm in desert country usually means a cloudburst, and in a narrow canyon a cloudburst means a wall of muddy rock-filled water that sweeps all life before it.

The total darkness of the night initiated the interesting chain of circumstances that finally led to our salvation. Charles remembered our small gasoline lantern. The lighting of this in turn led to our seeing the neatly coiled and long idle hundred foot length of quarter inch rope which up to this time had been just another of the many



Ancient Indian cave shelter near Hualpai Landing, Arizona. On the floor of the dark interior we found pieces of pottery. Charles Shelton in the background.

items in the boat designed solely to be tripped over.

Each of us seemed instantly to hit upon the same idea at sight of the rope. A point of land, revealed by the rays of the lantern, was not over a hundred feet away. We tied one end of the rope to the bow and commenced to undress. We did not minimize the deadly nature of the sticky silt, actually a form of quicksand. I once saw a horse trapped in quicksand. In five minutes the frantic animal had sunk forever from sight.

The water here was about a foot and a half deep. If we were to swim for it successfully and pull the boat free, it would be necessary to make flat dives and keep our feet and hands off the bottom. We propped the lantern on the bow and hurriedly stripped off our clothes. A strong cold wind was now blowing down the Grand Canyon. Daylight had gone completely. The bright rays of our lantern reached into the night and cast weird shadows on the cliffs that seemed to rise endlessly into the blackness above.

With one end of the rope securely tied to the bow, the other we attached to one of the cushion life preservers, so that the free end of the rope would not be lost when we dived in. It was decided that I should try it first. If anything should go wrong Charles, I hoped, would haul me out.

I felt a cold rain falling on my naked body as I stood momentarily in the stern. I plunged with a flat dive into the cold dark waters. For an instant I felt the soft ooze beneath me. Quickly I turned over and swam flat on my back to avoid touching the sticky silt. I pulled the life preserver and rope toward the point of land. When I was fifty feet out I gingerly let one foot down. I felt nothing. I called to Charles and he quickly dived in with his life preserver.

Together we swam toward the nearest point of land—bleak and unfriendly in the lantern light. We felt a definite current bearing us slowly down lake. It was a helpless, rather alarming sensation and were it not for the realization that the slim line of rope led back to the *Adventurer* we might truly have felt lost. By watching the lantern it was soon obvious that we were making headway against the current. Suddenly the rope drew taut.

We were still 25 feet from the shore. It seemed like 25 miles to that solid foothold. I let my legs hang down but felt no bottom. In unison we swam and pulled on the rope. Slowly the bow seemed to be coming around. I grew impatient at this slow progress. Quick, hard jerks ought to be more effective. We jerked once. The lantern, now the center of our entire visible world, toppled over and rolled

slowly along the bow decking and plunged into the water.

I have never experienced such utter darkness—or such a lost feeling. We could see absolutely nothing save the faint outline of the cliffs above against the slightly lesser darkness of the heavily overcast sky. Rain beat steadily upon the water. The wind was increasing in strong gusts. With the light gone we lost confidence in our plan. Charles offered the suggestion that it would be safer in the boat and perhaps more comfortable than spending the remainder of the night naked in the pitch darkness at the end of a rope in the black waters of Lake Mead.

I happened to be the first to reach the *Adventurer* and as I grasped the gunwhale it moved away under the pressure of my hand. I let out a shout of exultation. The boat was free! Apparently that one mighty jerk which upset the lantern was just enough to pull her loose.

We quickly clambered aboard. Charles found the flashlight and we paddled back down stream. Just before midnight we found the entrance to Midget Horse Canyon and there made camp.

At noon the next day we reached Pierce Ferry. Three days later we sighted Boulder Dam and docked at Hemenway Beach, our Lake Mead adventure a cherished memory.



Arizona Jay. That amiable clown and prankster, the beautiful azure-blue Arizona jay, represents a sub-tropical group of the jay family occurring within our borders. The quizzical, loquacious and prying nature of his kind is multiplied in this droll, handsome fellow whose exotic character combines to make him top entertainment any time. He is a valuable forester too, as others of his profession point out, his forest-floor acorn caches contributing materially to oak plantings.

Wings in the Desert Hills . . .

Because food and shelter are abundant in the desert country many species of birds have selected this region as their habitat. Here John Blackford gives Desert readers a glimpse of just a few of the winged denizens of the arid land.

By JOHN L. BLACKFORD
Photographs by the author

ADVENTURING in the far-flung pinyon-juniper woodland that mantles mesa and lower mountain slope, or wandering through groves of dwarfish evergreen oaks scattered about the foot of arid southerly ranges, we are continually made

aware of fascinating winged dwellers in the desert hills. Below us are the hot valleys, the desert of cholla cactus and creosote, the saguaro, ocotillo and allthorn, the mesquite-bordered arroyos, the yuccas and acacias. Above the foothills stands the first true moun-

tain forest of yellow pine and thorny locust. Just as the cactus wren of the cholla or the wild turkey of the pines dramatize these habitats, so here in the foothill zone we find bird personalities that lure us on to lasting acquaintance.



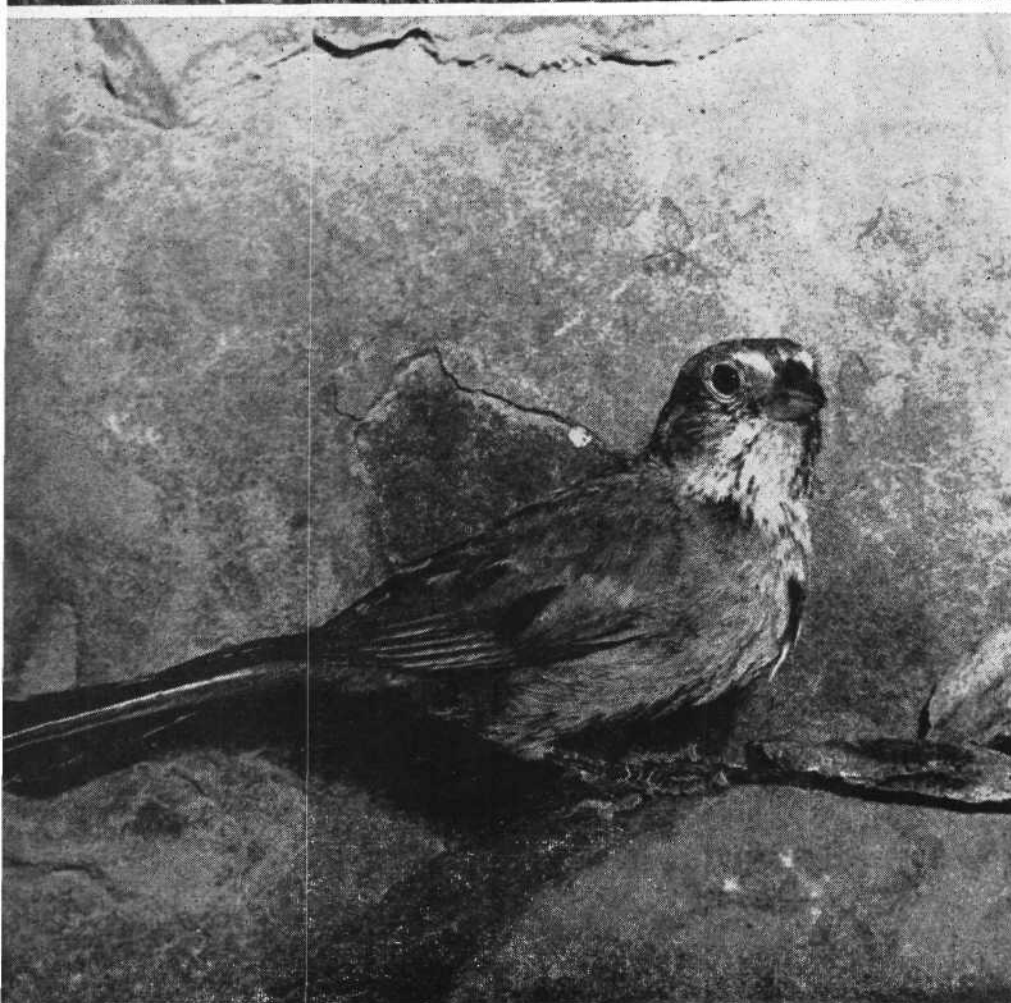
Good binoculars and a bird book will open this new world of wings to our eyes. What before was a passing flash of black-and-white becomes a Mearns or acorn woodpecker, with distinctive red and yellow markings gaudily apparent when observed with the glasses. After that this friendly fellow is a character we greet with enthusiasm, and his jolly *wake-up* populates the groves with new interests. Gradually the ear grows keener, distinguishing a multitude of call notes and chatter. Suddenly a new world of bird song bursts upon our civilization-dulled consciousness. Strange that we had never appreciated the variety of that avian chorus! But the eye and the ear tell us little beyond what the mind itself recognizes.

Now with the field glasses a troop of small, unnoticed birds in the oak boughs are identified as bridled titmice — rare aristocrats of the chickadee clan. Yet how many of us know them and enjoy their cheery presence? To many the arid wood seemed deserted. Nor are the pygmy forests of shaggy juniper and fragrant pinyon recognized as the home of black-throated gray warblers or the range of “blue crows” — the rollicking, sociable pinyon jays.

Here on these pages are other feathered friends of the foothills who will introduce us to as many carefree desert hours as we can treasure up to go looking for them.

• • •

Above—Rocky Mountain Nuthatch. His stronghold is the great russet-red boles of the higher yellow pines; yet as a wide-ranging adventurer and resident in the pygmy forest, the Rocky Mountain nuthatch especially appreciates its bounty of sweetmeated, oversize pinyon “nuts.” He roams upper levels of this woodland’s eastern domain, while closely related forms claim western reaches of the juniper-pinyon association.



Below—Canyon Towhee. On pinyon flats and at the mouths of canyons in the Upper Sonoran Zone where nut pines and junipers merge with the flora of the lower desert, the canyon towhee is an abundant resident. Rufous crowned and of a gray-buff and sepia-brown plumage, his song is one of contented and pleasing monotony. Nests contain three bluish-white or pearl-gray eggs scrawled with black, brown or lavender. The friendly nature of “Brown Chippy” makes him a favorite about adobe courtyards and plazas of New Mexican Pueblos. This country towhee is a resident of Chaco Canyon.



Woodhouse Jay. Characteristic of scrub oak thickets and wide reaches of the juniper-pinyon pinelands is the Woodhouse jay. In fact he is their chief proprietor, and any undue intrusion there calls forth his strident warning. But otherwise he is quite a conversational fellow with an extensive vocabulary of clucks, gurgles, squawks and chatter.



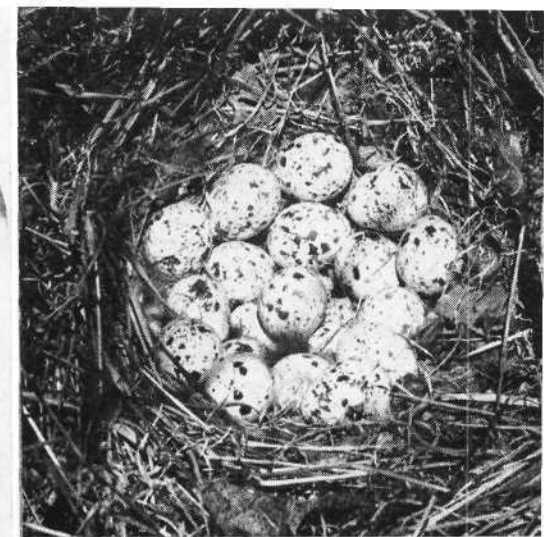
Young Western Mourning Dove. As in so many other diverse habitats the adaptable western mourning dove is at home in the juniper-pinyon woodlands of mesa and foothill. There its mellow calls fill the sunny, redolent aisles, bringing to us all the languor and lassitude of midsummer. And its whistling wings add other eerie music to the arid pygmy groves.

Gray Titmouse. Among nut pines and cedars of the hills the pert gray titmouse troops about in small bands in company of mountain chickadees, warblers, woodpeckers, nuthatches, bush-tits and occasionally chirping sparrows. Quite friendly and confiding, this small bird is also extremely quick. After four days, and just a few minutes before finally breaking camp, I secured this single photograph of a fledgling.



Desert Quail Chick. Typically residents of the mesquite, creosote, and palo verde thickets in the valleys, desert or Gambel's quail often range up into juniper-pinyon woodlands, where they prefer stony canyons and rocky foothill slopes. Their black, decurved plumes, blue-gray backs, and chestnut sides distinguish the adults. Both parents are solicitous of their large coveys of striped, downy youngsters.



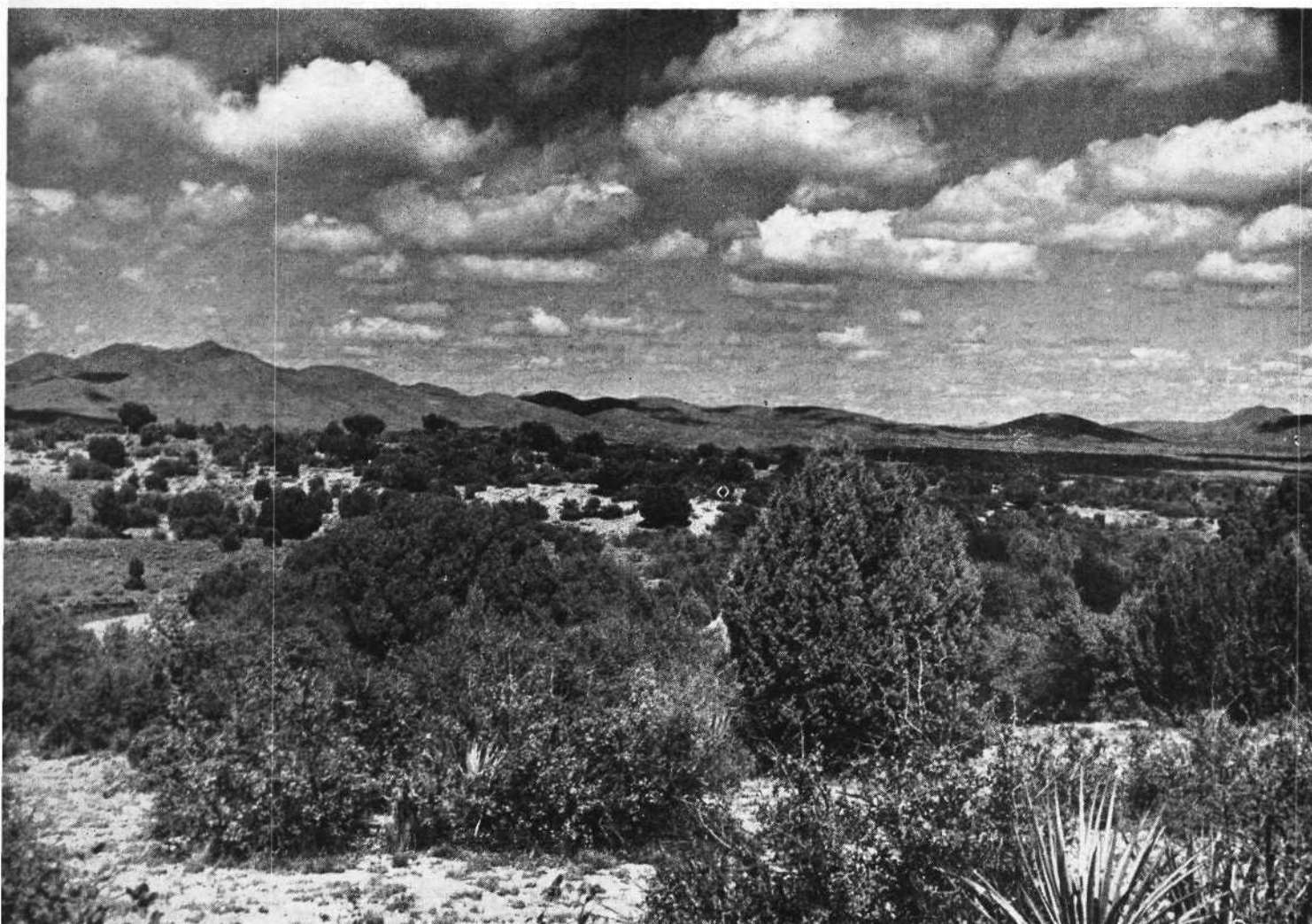


Nest and Eggs of Stephens Whippoorwill. At the same season that whippoorwills were calling far down in the foothills amid dwarf oaks bordering the desert's floor, I found this nest of the species several thousand feet higher under towering yellow pines in a shaded ravine. Oak leaves and pine needles mingled in the forest duff that cradled the two white eggs. The desert hills are truly a domain of contrasts.

Mountain Chickadee. Ranging pinyon woodlands, the cheery mountain chickadee adds to his usual friends—the woodpeckers and nuthatches—many other acquaintances characteristic of the pygmy forest. He may be seen along the South Rim of Grand Canyon, at Mesa Verde, or at Pinyon Flat on San Jacinto.

Nest and Eggs of Desert Quail. The twenty creamy-white, brown-speckled eggs in this nest accent the prolific qualities of that intriguing citizen, the desert quail. Their swift little feet are relied upon more often than wings to carry the birds to safety; for there is no protective overstory even in palo verde thickets or the dwarfish juniper wood. Destruction of habitat and overhunting are greatest threats to their survival.

Juniper-pinyon Woodland, Mojave County, Arizona. Characteristic feathered folk of the juniper-pinyon belt are the Woodhouse and pinyon jays, gray titmice, lead-colored bush-tits, western gnatcatchers and black-throated gray warblers. Here the aromatic pygmy forest of plateau and foothill stretches across northwestern Arizona to Mt. Peacock in the distance.



Night Camp

By MARGUERITE KINGMAN
Kansas City, Missouri

The armored knight defends the one most fair:

A panicle of blossoms in her hair,
She nods her head-dress, clustered high with white,
And waves to him as night winds stir the air.

With spear at side to symbolize his might,
He guards his lovely lady through the night.
A desert legion — regimental flare —
Stands spectral in the moonbeams' silver light.

The yucca leaves are lancer bivouacs,
Their ladies fair are flowers belled in wax.

• • •

WHEN WINTER COMES

By EVA L. ROBINSON
Los Angeles, California

How shall we of a desert valley
Know when Winter time is here?
So dreamily does Autumn drift away
In faded dress—so warm each day—
So little shorter than the day before—
One cannot feel that Winter's near.

We watch the aspens turn to gold,
The oaks to russet brown
Upon the higher hillsides
As the cold comes creeping down
From icy mountain tops
Where Winter now abides.

But there will come a calm, clear night—
Bright, brittle stars
Will fill a sky of gray blue steel.
We'll wake up chilly in our summer beds—
Our hands for warmer covers feel,
And pull them closely up around our heads.

O, we shall know when Winter's here—all right.

PILGRIMAGE

By MABEL M. DIMMICK
Santa Barbara, California

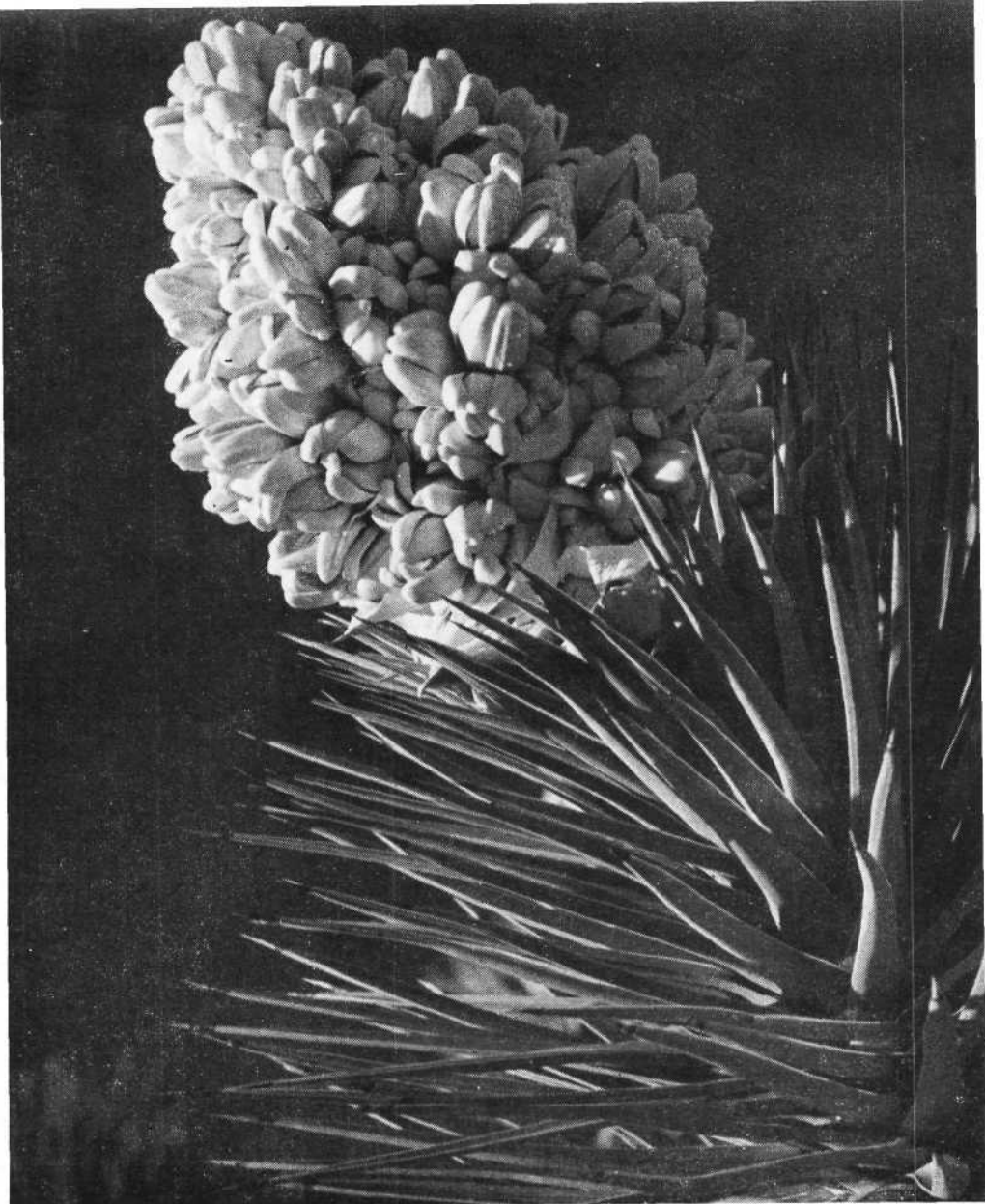
The Desert Lily bides her time
Till alchemy of rain and sun
Lures her from her dreamless sleep
Beneath the shifting, drifting sand—
Bides her time—and loiters there—
For she awaits—a perfect hour—
Then on pilgrimage we go
To see the beauty of her flower.

Toward Vistas New

By TANYA SOUTH

The fields seem greenest up the rise,
And where my path to heaven lies,
The fields are luscious with their yield.
At times my vision is unsealed
To such abundance, that I view
My present with one thought in mind,
That it might strengthen me anew
For other vistas yet to find.

Each step is only preparation.
Beyond, above the murk and dross,
Lies Heaven's greatest exaltation—
And waits, and waits for us.



VOICE OF THE DESERT

By VINA REED

Did you ever live on a desert hill,
In a house, or in a tent,
And breathe the unpolluted air,
That could only be God sent?
Could you buy the view that your eyes behold,
Of the hills and distant plain,
And the greasewood, trees, and cactus bold,
That thrive with so little rain?

Did you ever live by a desert road,
Where man has seldom trod,
With his trusty beast, and its heavy load,
And no one near but God?
Where all is very, very still,
With only a breeze to say,
"This path is yours—go where you will,
But do not lose your way."

Yes, have you lived under desert skies,
Where the moon is bright at night,
And the sun in its orbit is a golden prize,
And you feel the world's all right?
It's a privilege to live in the open
Where nature protects her own,
In spite of the wind, the dust and the storms,
You never feel alone.

DESERT WINDS

By NANCE MERRILL
Moline, Illinois

Restless, yearning, roving, burning,
Desert winds blow night and day,
Sighing, sobbing, crying, throbbing,
Searching for a place to stay.

But the spiny thorns deride them
Offer nought but pain and fear
And the winds go whistling onward
Over lands burned hard and sere.

Sweeping ever toward the mountains
Rushing madly on and on
Catching dust in whirling patterns
Never still from dawn to dawn.

Til the jagged heights surround them
End their longing age old flight
And the winds die in the valleys
Rest at last in peaceful night.

• • •

DESERT SUNRISE

By LUCY BARKER
South Pasadena, California

When the sun peeks over the mountains
The desert wakes with a rush—
Joshua trees step from the shadows,
And creatures move in the brush —
The warm soft glow of the sand hills
Displays a splendor all its own —
Disproving the moonlight's illusion
When day turns the castles to stone.



It was a happy day for Prospectors Alton Head, Jim Keeney and their partner in some ventures, Johnny Gossett, when they collected the first cash payments for uranium discoveries in the Grants, New Mexico, area. The biggest strike Head and Keeney made—a rich pitchblende lode—is lost in the mountains of western New Mexico. Left to right, are Banker R. A. Choat, Gossett, Keeney and Head.

The Sewing Basket's Secret

STORY OF A LOST PITCHBLENDE LODE

Her "black egg," Mrs. Jim Keeney called the peculiar rock she used for darning her husband's socks, worn through on frequent prospecting treks with his partner, Alton Head. The rock, along with hundreds of others piled in the Keeney back yard, had been found by the prospectors, then forgotten—until a geiger counter proved it almost pure pitchblende ore! Here is the story of a rich uranium property hidden somewhere in the mountains of western New Mexico—the Lost Sewing Basket Mine.

By WAYNE WINTERS
Photo by the author

ALTON HEAD and Jim Keeney were prospectors in the true tradition of the Old West. From Grants, New Mexico, they explored the countless mountains and valleys of the western part of the state in search of mineral ore.

For many years the partners had prospected together. Some of their trips were profitable; others netted only a bagful of cabinet rocks. Many of the specimens were difficult to identify, among them a small black rock about the size of a hen's egg.

For some time this black egg lay in a pile of rocks in the Keeney back yard in Grants. One day Mrs. Keeney, looking for a suitable aid for her sock darning, picked it up and placed it in her sewing basket. She found it just the right size for her purpose, and dozens of holes worn through Jim's socks during his long treks into the mountains were mended over it.

When Grants became a uranium center and the Atomic Energy Commission began urging prospectors in the area to be on the lookout for radioactive ore, Head and Keeney added a geiger counter to their equipment. Soon they had staked several rich uranium claims.

One winter evening, Alton and Jim decided to check over the hundreds of rocks they had collected in their years of prospecting. With the aid of the geiger counter, they began testing. Several good readings were obtained, but nothing spectacular until Mrs. Keeney laughingly brought out her favorite darning rock, the peculiar black egg. The needle of the counter went crazy, hitting the farthest peg on the "very active" side of the meter.

A hasty trip to the assay office corroborated the geiger counter's reading—the black egg was practically pure pitchblende, the richest known radioactive ore.

The two prospectors now knew what

the strange black rock was—but where they had found it was another question. Neither could recall the exact location of its discovery, although they are fairly sure it came from within a 25-mile radius of a particular mountain in Valencia County. They are not revealing just which mountain they mean.

Jim and Alton have become big uranium men around Grants, and they are kept busy these days looking after their interests. But whenever business allows a holiday, the two take off for the hills, to search for their "Lost Sewing Basket Mine." Although they don't say much about the lost pitchblende, they will admit to having narrowed the search to half a dozen probable places.

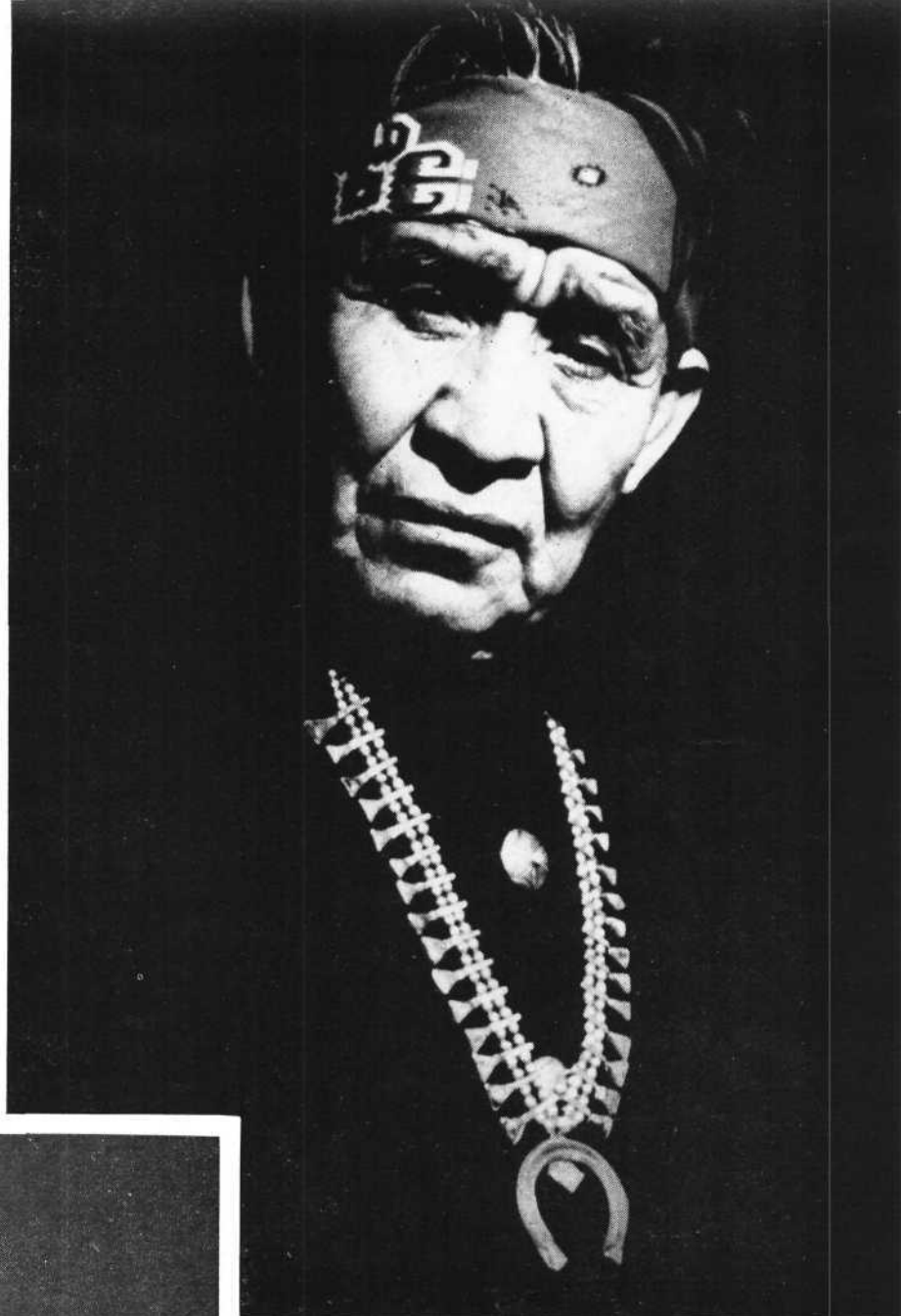
Each time they slip away from town for another try, the two prospectors, carrying their geiger counter, grub and a few supplies, hope to return with their mystery solved. Someday, they believe, they will stumble again upon the spot and, although exact landmarks are hazy in their minds, will recognize the spot where the peculiar and fabulously rich black egg was found.

If they fail, their bonanza strike probably will remain forever, the Lost Sewing Basket Mine.

PICTURES OF THE MONTH

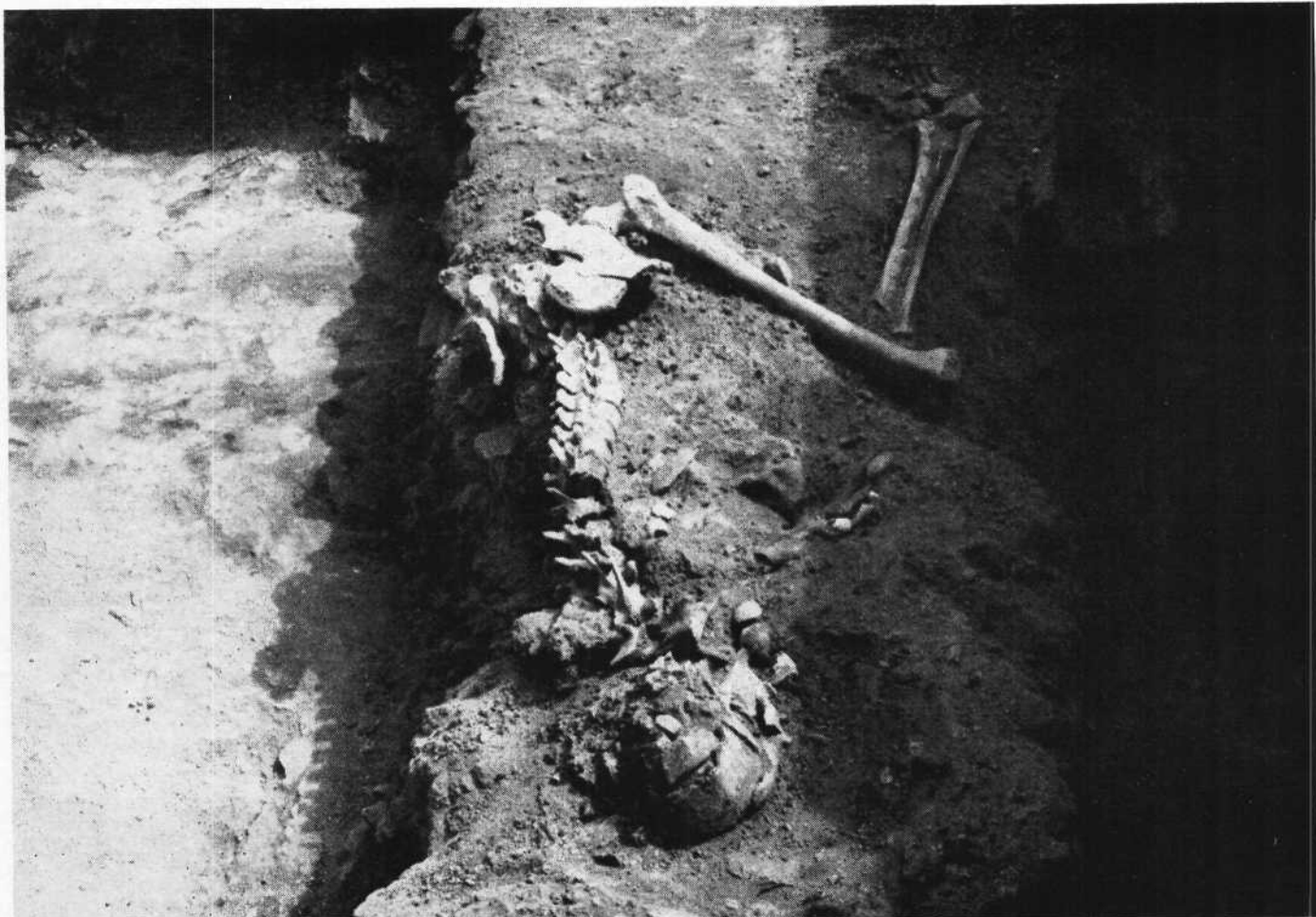
Medicine Man . . .

Tillman Hadley, Navajo medicine man from Tuba City, Arizona, participated in the Nevada Day celebration last October 31 in Carson City and there was photographed by Adrian Atwater of Carson City. The candid shot was taken at mid-day, the sun being the sole source of light. When he saw the results of the original picture, taken on a 2¼ x 2¼ ektachrome color film, Atwater decided there were further possibilities. He made a black and white negative from the color transparency and through darkroom technique removed the background to produce this black and white character study. A 2¼ x 2¼ Korelle reflex was used, 1/50 second at f. 8. Desert's photo judges awarded the portrait first prize in the December Picture-of-the-Month contest.



Navajo Tower . . .

The watch tower on the South Rim of Grand Canyon made a striking subject for Willard Luce of Provo, Utah, who took this photograph with a 4x5 Graphic View camera, 127 mm. Ektar lens, orange filter, 1/25 second at f. 12.7, to win second prize for December.



The remains of one Gallina defender who fell during the savage struggle in which a now unknown enemy wiped out his people, sacked and burned his village. His bones are crushed by stones and falling roof timbers.

Mystery of the Vanished Gallinas

By CHARLES GALLENKAMP

Photos by the author
Map by Norton Allen

THE NORTH-CENTRAL section of New Mexico is a vast area of almost uncharted territory. Between the towns of Cuba and El Vado lie hundreds of square miles of mesquite covered plains scarred by heavily wooded mesas and rugged, parched canyons.

One hot summer day in 1934, a Spanish cowboy named Joe Areano rode his horse deep into one of these canyons to cast a watchful eye on his cattle grazing near the precious water of a stream. Along the way he noticed a number of piles of sandstone slabs, some of which looked to him like the crumbled remains of walls. Around

the stone piles he picked up bits of flint and broken pottery, but these were not like Indian ruins he had ever seen before. They resembled more closely the towers of medieval European fortresses.

Then Joe Areano found something that was to cast the first ray of scientific light on the forgotten story buried there beneath the earth. He picked up a small stone encrusted with a curious looking slag and carried it to the sunlight where he could examine it more closely. Once in the light the slag flashed brightly with the yellow brilliance of gold, and the cowboy's imagination was set ablaze. His *torreones*, he was sure, were the remains of smelters used by the Indians centuries before to melt crude ore into gleaming objects of gold. He quickly

High in the rugged mountains of north-central New Mexico, archeologists are uncovering one of the strangest stories of prehistoric warfare and violence ever known — a story which offers a grim warning to modern atomic-age civilization.

made plans to return to the spot, equipped to recover the treasure he was certain the walls contained.

Several weeks later Joe Areano rode into Santa Fe, his saddlebags bulging with strange objects. As he made his way to the trader's office his walk was not that of a man about to lay a fortune in buried gold before the startled eyes of the trader. He was thoughtful, dejected—not quite sure why his plan had failed. But he gathered his pride, entered the post, and began to take the objects from his bags and place them on a table for all to see. He had no less than eleven carefully fashioned pottery bowls of various sizes and shapes, all from the ruins of his towers.

Then the cowboy made a mistake. He offered his "treasure" for sale and attracted the attention of government

officials who began to question him as to the exact location of the ruins. They were, it resulted, in the Santa Fe National Forest, and Joe Areano found himself charged with excavating on government land without a permit—an ironic end to his treasure hunt.

The news of his discovery and resulting plight reached Dr. Frank C. Hibben of the University of New Mexico at Albuquerque. He secured the cowboy's release and accompanied him to the remote mesas where the ruins were located. After careful examination of the pottery and the site of its discovery, Hibben was convinced they were the ruins of a previously unknown culture. Extensive exploration turned up hundreds of the strange stone mounds on every pinnacle and ridge of the surrounding country. Some were definitely tower-like structures, others almost meaningless piles of weathered sandstone. Every ruin bore the same unmistakable traces of fire and sudden destruction which left little doubt that the fate of those inside had been a tragic one. It was indeed a discovery of major importance.

In the years following Joe Areano's unsuccessful search for gold, a field school was established in the area by the University of New Mexico under Dr. Hibben's direction. Gradually, through careful excavation, the ruins began to make archeological sense. In addition to the curious stone towers were found pit houses, unit-houses and cliff dwellings, all apparently in use at the same time. The ruins yielded pottery vessels, stone axes and grinders, flint projectile points and woven sandals in great abundance.

Yet, the structures contained something of far greater interest — the charred, mutilated bodies of their builders. As each dwelling was cleared of earth, the same story was revealed, that of the violent fate of an entire civilization at the hands of an unknown enemy. Their homes, heavily defended though they were, were stormed, burned, and destroyed to the last one. No trace has yet been found that any of the luckless defenders survived the fierce struggle. It is a story without an ending in the pages of modern archeology.

Since 1934, Dr. Hibben has led numerous parties into the wild, remote canyons in search of new ruins. The past five summers have witnessed intensive activity in the effort to piece together the story of the Gallinas and their macabre fate.

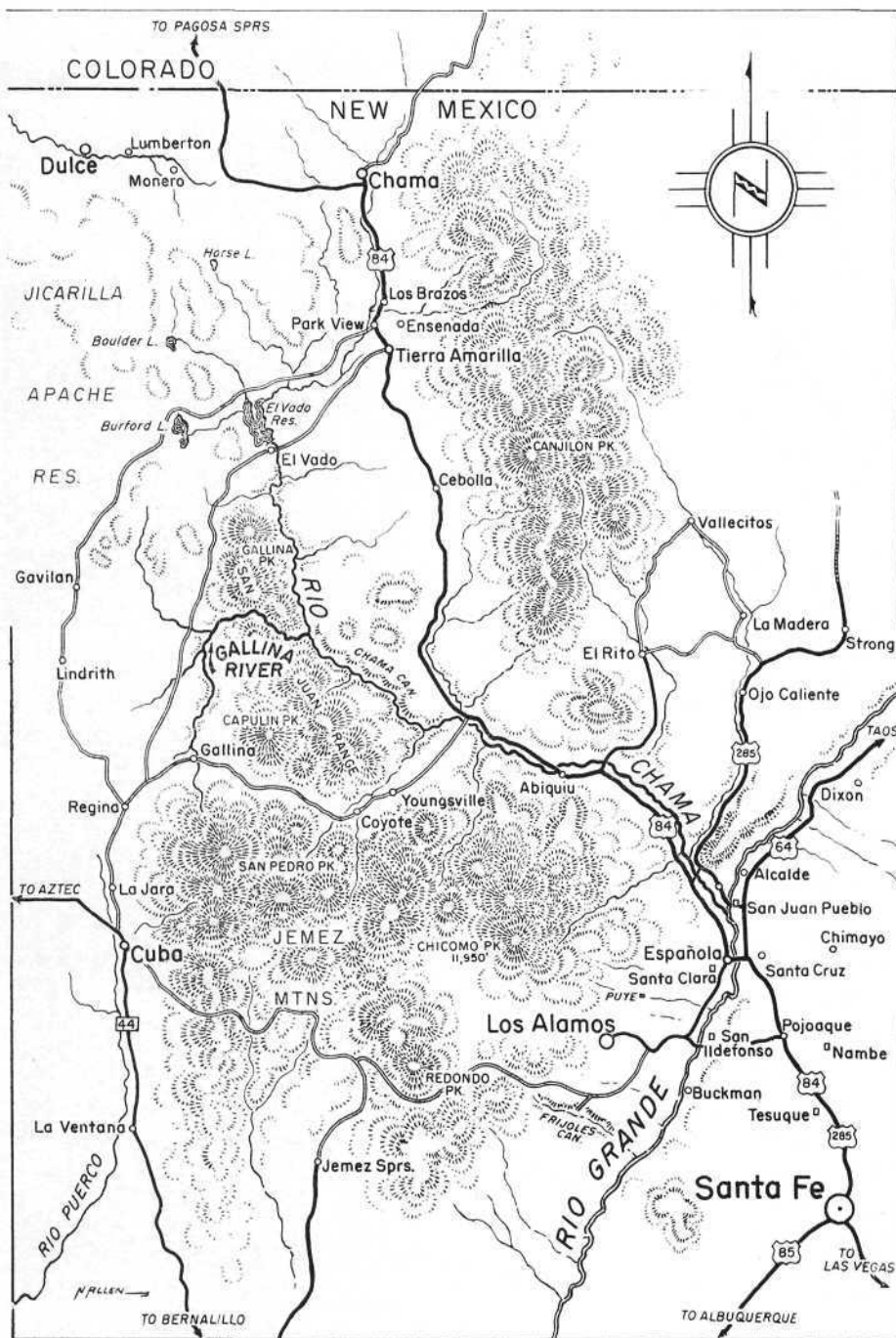
The culture was named after the Gallina River which seems to mark the center of the ruin area. Excavations have provided a number of facts along with the inevitable problems of



Above—Ruins of a round tower used by the Gallinas for grain storage. Its original height is estimated at 30 feet.

Below—Interior of the storage tower showing partitions designed to keep dry grains separate. Archeologists found evidence that the structure had been lived in before being converted to a crude silo.

an archeological mystery story such as this. The Gallinas seem to have been a tribe originally foreign to the Southwest, and present evidence points to



the Missouri Valley as their homeland. Unlike the short, round faced Pueblos, the Gallinas were tall and well muscled. They brought with them to New Mexico a kind of maize grown extensively by pre-historic people in the Missouri Valley as well as cord marked pottery also common to that area.

Tree ring dates from the earliest Gallina sites place the time of their arrival in New Mexico as early in the eleventh century A.D. They migrated slowly southward through the sun baked mesas and canyons building their defensive towers and homes wherever water was to be found. Gradually a pueblo-like culture evolved among them, though they remained for the most part isolated from the

large centers of pueblo life such as Chaco Canyon with which they were contemporary. This isolation can probably be explained by an inherent sense of fear which motivated the entire course of their civilization—a fear which archeological investigation has shown to have been justified.

Finally after nearly a century of restless migrations, the Gallinas settled themselves in the high ridges and deep canyons that branch out like fingers from the fertile valley of the Gallina River. Never once did they lose their fear of invasion, for near every group of pit houses or unit-houses they constructed one of their protective towers.

The use of towers in any form by prehistoric people in the Southwest was

not common, but here are found hundreds of the fortress-like structures. In only one other area, the Hovenweep National Monument in southern Utah, have similar ruins been found, though not in such quantity.

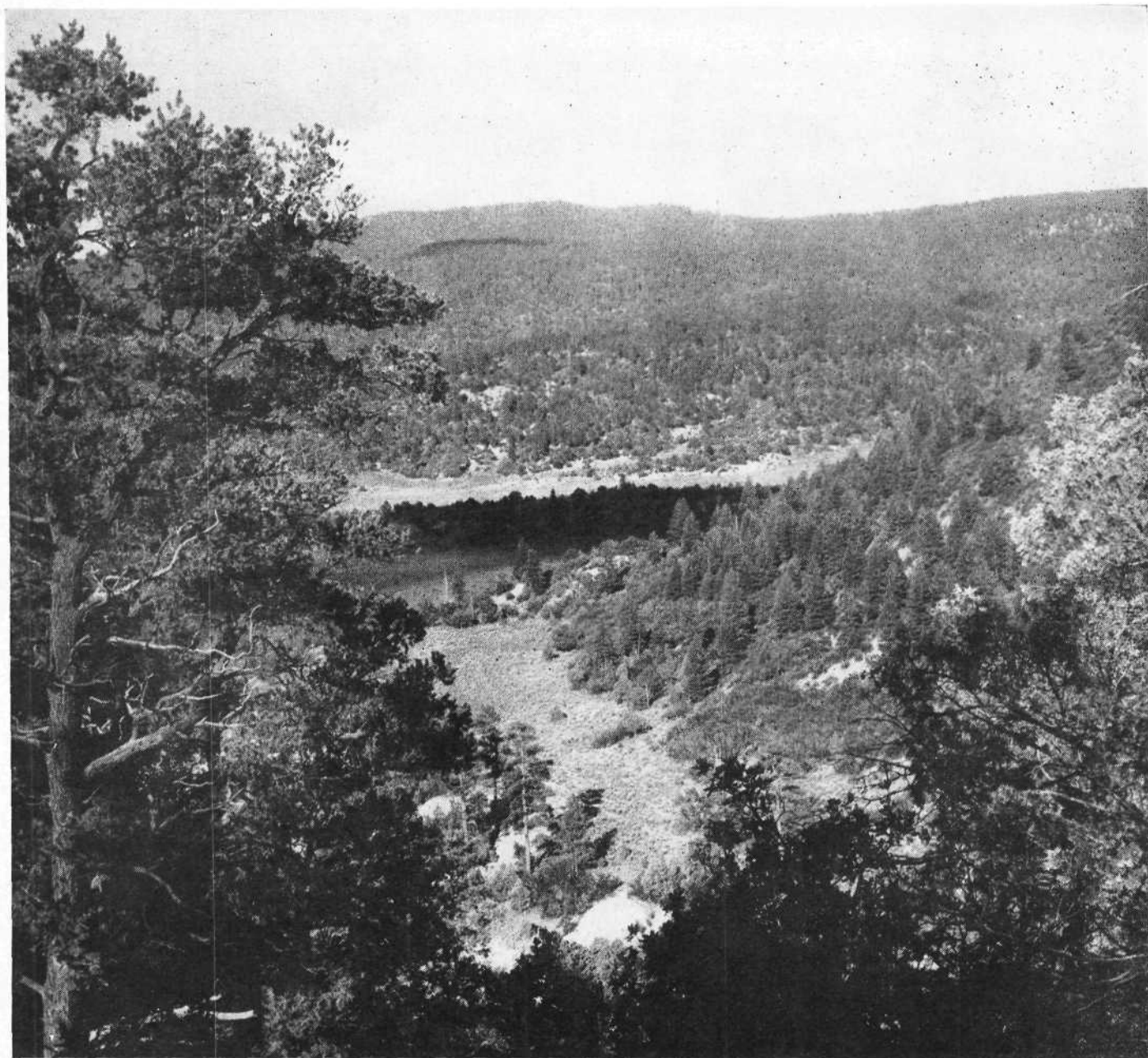
The Gallina towers were constructed with crude blocks of sandstone masonry held together with adobe mortar, and often exceeded 30 feet in height. They apparently served as a family dwelling place as well as a refuge for other tribesmen living in pit or unit-houses near the tower. Entrance to the towers was by means of ladders as no doors or windows could be used if protection was to remain the primary consideration. Each tower contained, as did all Gallina dwellings, a fire pit, fire screen, corn storage bins, and a ventilating shaft which was always placed in the south wall. Not infrequently the floors were lined with sandstone slabs and the walls decorated with murals of religious significance.

One is immediately impressed by the strategic, almost inaccessible positions of the ruins. In fact, the efforts made by the tribe as a whole to insure defense defy the imagination. But despite their fear and the cautious progress of their civilization, the close of the thirteenth century A.D. was to witness the extinction of the Gallinas' small but tenacious empire in New Mexico. Their towers and homes were invaded, sacked and burned. The Gallinas themselves were slaughtered without mercy as their homes fell one by one before the onslaught of an enemy whose identity has as yet eluded discovery.

The first tower excavated gave proof of the fury of the struggle. Sixteen skeletons were found inside, each pierced with the charred ends of cane arrows. Others had gaping axe wounds in their skulls. In the ventilating shaft the body of a young boy, perhaps 16 years old, was found. He had been struck in the hip by an arrow and tried to crawl into the vent to escape the searing heat of the burning roof as it fell in upon him. The shaft had held him fast while the lower half of his body was burned away: the upper half was dried and perfectly preserved by the heat.

A pit house yielded a pile of ten skeletons, all of them apparently tortured before death, then fired upon at close range. Heavy stones had been thrown down on them from the walls above. And so the story goes in every ruin.

Whoever the invaders were, they must have known the country well.



Over this rugged country the prehistoric invaders sought out the Gallina Indians and, for some unfathomable reason, destroyed them.

Perhaps it was the Navajos or their warlike cousins the Apaches who rained such wrath on the Gallinas. The possibility even occurs that it was a civil war between opposing groups within the Gallina domain, but it is difficult to fathom such hatred between kindred people. There is conflicting evidence in many directions, but the true answer may never be fully known.

The battle raged periodically for a century or more, paralleling the wars which plague modern civilization. Whatever the cause, it left a wake of destruction which seems to have erased the Gallinas completely from the story of the pre-Spanish Southwest. The weathered piles of stone might still conceal their secret if a Spanish cowboy had not decided to look for gold.

Coyotes Eat 'Most Anything . . .

Coyotes will eat almost anything, from cow dung to watermelon, California Department of Fish and Game researchers have discovered. Analysis of over 2200 coyote stomachs in the past 12 years has turned up evidence of rattlesnakes, insects, small birds, dead livestock and deer, skunk, manzanita berries and even poison oak leaves.

Rodents are by far the most popular dietary item. Game biologists found meadow mice and other rodents such as wood rats, deer mice, gophers and ground squirrels in nearly half the stomachs examined. Some coyotes in northeastern California have even become specialists in porcupine.

Rabbits were a close second on the coyote menu, combining with rodents to make up half the total volume of food examined. Deer and livestock were third. Most of the cattle and horse, a good portion of the sheep and much of the deer were carrion.

Although on a 96 percent meat diet, coyotes did sample most of the cultivated fruits in season, and, in the spring particularly, some Sierra coyotes ate grass.

Pinenuts, three bats and a piece of well-chewed leather were also catalogued. One persistent puppy composed a supper of 640 grasshoppers and topped it off with 250 spiders for dessert.

LETTERS

Good Old Greasewood . . .

Cashion, Arizona

Desert:

Thank you, Randall Henderson, for backing us up in calling our little desert plant "greasewood." (Letters, December *Desert*.)

My grandfather called it that before they ever noticed the creosote smell, probably because of the oily appearance of the leaves. To me, the name creosote bush sounds unpleasant — to call it *Larrea divaricata*, that's just too much! That would be as bad as having to say sodium chloride when asking to pass the salt.

"Chamise" (or *chamisa*, *chamiso*) is merely Spanish for brush or thicket and does not indicate any special kind of shrub. Chaparral originally meant "a forest of evergreen oak," and from that word is derived the name *chaparreros* or "chaps" for the leather pants cowboys wear while riding through brush.

I have planted greasewood seeds in my own yard. When the sunshine warms the bushes in the spring, our friends are delighted with the fragrance — the good, clean desert smell.

MRS. J. W. SEARGEANT

Protect the Dinosaurs . . .

Palo Alto, California

Desert:

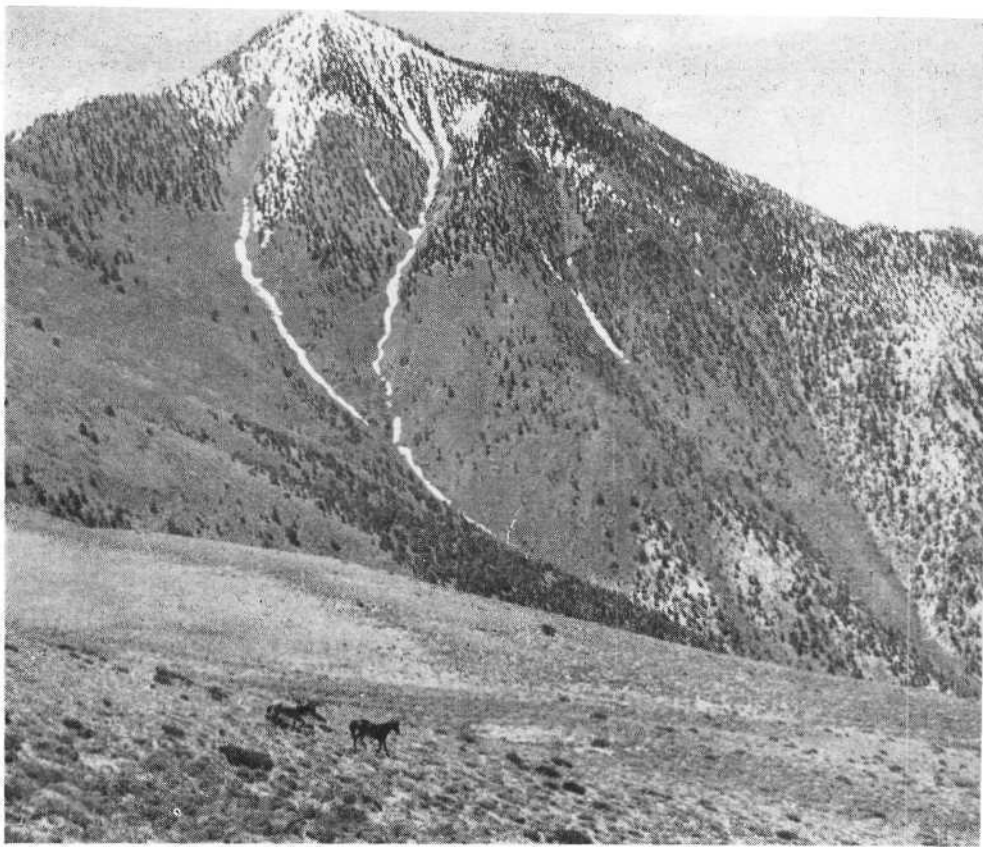
I read with great interest the article, "Graveyard of the Dinosaurs," published in the December issue of *Desert Magazine*. I should like to join all those who have sent in their appeals for saving the Dinosaur National Monument for posterity.

In my small native country, Czechoslovakia, we had many relics of the past which I always cherished and honored, but nothing so old as this. Many were destroyed by time and man. Some still exist and of some we have only reproductions in pictures.

It is not the same to see a reconstructed dinosaur in a metropolitan museum, surrounded by skyscrapers and seething humanity, as it is to contemplate these awe-inspiring fossils in Nature's own setting.

MRS. EMILIE MARKOVA

At a much higher elevation than the proposed Echo Park Dam, the fossil remains in Dinosaur National Monument are not in danger of inundation. Nature lovers are protesting the loss of a great wilderness area which would result from the dam's construction.—R.H.



Wild Horses on Telescope Peak . . .

Portal, Arizona

Desert:

Louise Werner, in her November *Desert* article, "We Climbed Telescope Peak," quotes Dr. James Bonner as saying: "We used to see wild horses here." That interested me because 12 years ago I took a picture of two horses below the final pyramid of Telescope Peak.

I first spotted them on top of Manly Peak, and they played games with me all the way to the foot of Telescope. The two horses would take off, bucking and kicking up their heels, then wait for me a quarter mile ahead, shaking their heads and pawing the ground. When I approached they would start up again, make a big circle around me and wait a quarter mile ahead once more.

I have seldom seen animals more free and brimful of the joy of living than those horses on Telescope Peak. I can't guarantee that they were wild, but if they weren't, they were pretty far from home.

But what did Jim Bonner mean: "We used to see wild horses"? Has some presumptuous two-legged lord of the universe gone up Telescope Peak and exterminated them?

I'm enclosing the picture, which was taken June 14, 1941, between Manly and Telescope peaks at an elevation of 9600 feet.

WELDON F. HEALD

Ben Lilly the Hunter . . .

Desert Center, California

Desert:

I was surprised to find Ben Lilly classified categorically as a Mountain

Man in the interesting article on him in December *Desert*. He was not in any sense one of them and historians should not try to make one out of him. The operations of the Mountain Men of history were ended a long time before Ben Lilly appeared upon the scene. Too, his character was generally different from that of the Mountain Men as delineated by many of their biographers. If Ben Lilly had no contemporary, no other person like himself with whom he could associate, then his was a solitary role and historians should recognize his individuality and respect it.

I don't know of any authority on the Mountain Men who would actually declare Ben Lilly to have been one of them. On the other hand, some chroniclers of Lilly have done so. J. Frank Dobie, an eminent authority on Lilly, in his biography *The Ben Lilly Legend*, does not do so, although some may feel that he comes close to it in the closing paragraphs with these interesting lines:

"He (Lilly) came too late to share the 'perfection of primitiveness' with Kit Carson, Jim Bridger, Broken Hand, Dick Wooten and the other Mountain Men who mapped the Rockies in their heads before cartographers mapped them on paper; but he was in the tradition of the Mountain Men and was the very last man in that tradition. There can never be another."

Ben Lilly was a hunter and should be remembered as such. He was the greatest American hunter of the bear and mountain lion and more adept in the art of hunting these animals than any other man.

WILL LEWIS

Safer Than a Highway . . .

Los Angeles, California

Desert:

I have been reading *Desert Magazine* for about two years and find it very interesting. However, I haven't been able to find the answers to a few questions that bother me:

1) I am afraid of snakes and wear leather boots to my knees. Do snakes strike higher than a man's knees and can a rattler pierce the leather of a boot?

2) I have read that mountain lions are always on the move from one place to another. In the winter, would you be apt to run across one moving from one mountain range to another or one out hunting for food?

3) I have read about sleeping on the ground in bedrolls. What prevents snakes, spiders, etc., from disturbing someone lying on the ground like that?

4) Is it lawful to have a .45 strapped on in a holster in plain sight for self protection? Can you carry a gun for protection in state parks, national monuments, etc?

I am not exactly a tenderfoot. I have hunted for years back east. I always carry a first aid kit, compass, maps, water and food and have geological survey maps of the areas I visit.

The day after Christmas I am leaving on a 10-day prospecting trip. I am taking a small trailer and intend to cover the Pegleg area—the Superstition Mountains, Fish Mountains, Clay Hills, Santa Rosas, etc. As I will be alone, I want to carry a .45 for protection.

F. J. H.

My advice to Mr. H. is to throw away the boots and .45 and forget about snakes and lions. The desert is the safest place in the world. The wild drivers on the highways are a thousand times more hazardous than the wildlife on the desert.—R.H.

Roadside Parks in Texas . . .

Topock, Arizona

Desert:

Your editor, in his May editorial, "Just Between You and Me," praised the roadside parks he encountered while traveling in Texas. I would like to add that a good many of these highway stops have windmills and water storage tanks. The yuccas and other native desert shrubs and cactus planted along the road are watered by a Highway Department tank truck.

Being a native Texan, I like to brag about these highway conveniences — especially after having lived and traveled over much of the Southwest and Midwest where you never see a roadside park.

EMMETT MURRAY

The West Texas Desert . . .

Burbank, California

Desert:

December's "Just Between You and Me" editorial calculates desert population for the years 1930 and 1950. I think a very large section of the American desert, both area wise and population wise, is being overlooked in these figures. The addition of West Texas would add several million acres to the land area as well as a few hundred thousand population.

A line drawn from the confluence of the Devil's River almost due north through Lubbock and Amarillo would separate the desert part of Texas from the rest of the state. Some people would include most of the area for a hundred miles north of the Rio Grande practically to the Gulf of Mexico in the desert area of Texas.

El Paso is in the middle of the desert and at least three other fair sized cities — Amarillo, Lubbock and San Angelo—are on the edge of it. *Desert Magazine* probably has a much larger potential than Editor Randall Henderson suspected back in 1930 when he first dreamed of a magazine for desert readers.

GERALD X. FITZGERALD

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The Monument at South Pass . . .

Oakland, California

Desert:

To me, Jay Ransom's "Historic Pass in the Wind River Country" (August '53) is one of the most interesting stories ever published in *Desert Magazine*. I hope this excursion into Wyoming indicates a trend, as cannot it be said with truth that the Great American Desert includes all the land between the Rockies and the Sierra-Cascade range?

The photo of the monument on the old Oregon Trail seemed familiar to me, and I went to my copy of Ezra Meeker's *Ox Team on the Old Oregon Trail, 1852-1906* to find the story behind it.

Meeker was a pioneer who had crossed the plains in 1852 by ox team. In 1906 he made another ox-team journey eastward for the purpose of marking the trail and preserving interest in it. This is what he has to say about the South Pass marker:

"Pacific Springs, Wyoming, June 20, 1906, odometer 958 miles from The Dalles, Oregon. . . . Remained in camp all day at Pacific Springs and searched for a suitable stone for a monument to be placed at the summit. After almost despairing, I suddenly came to

exactly what was wanted. . . . So, a little later, after procuring help, we turned it over to find that both sides were flat, with 26 inches face and 15 inches thick at one end and 14 wide and 12 thick at the other—one of Nature's own handiwork, as if made for this very purpose, to stand on the top of the mountains for the centuries to come to perpetuate the memory of the generations that have passed. I think it is granite formation but is mixed with quartz at the large end and very hard — estimated weight, 1000 pounds.

"Remained here in camp while inscribing the monument. There being no stone cutter here, the clerk of the store formed the letters on stiff pasteboard and then cut them out to make a stencil, after which the shapes of the letters were transformed to the stone by crayon marks. The letters were then cut with the cold chisel deep enough to make a permanent inscription. The stone is so very hard that it required steady work all day to cut the 20 letters and figures, 'The Old Oregon Trail, 1843-57' . . . On June 24 at 3 p.m. erected the monument . . . on the summit of South Pass."

The photo accompanying Meeker's account shows Meeker, three men, one woman and a little girl with the monument in place.

DONALD E. CAMERON

• • •

International Park . . .

Sacramento, California

Desert:

I was particularly interested in Randall Henderson's Big Bend article (July *Desert*). Since the very first, I followed Texas' campaign for the appropriation which finally resulted in the creation of Big Bend National Park.

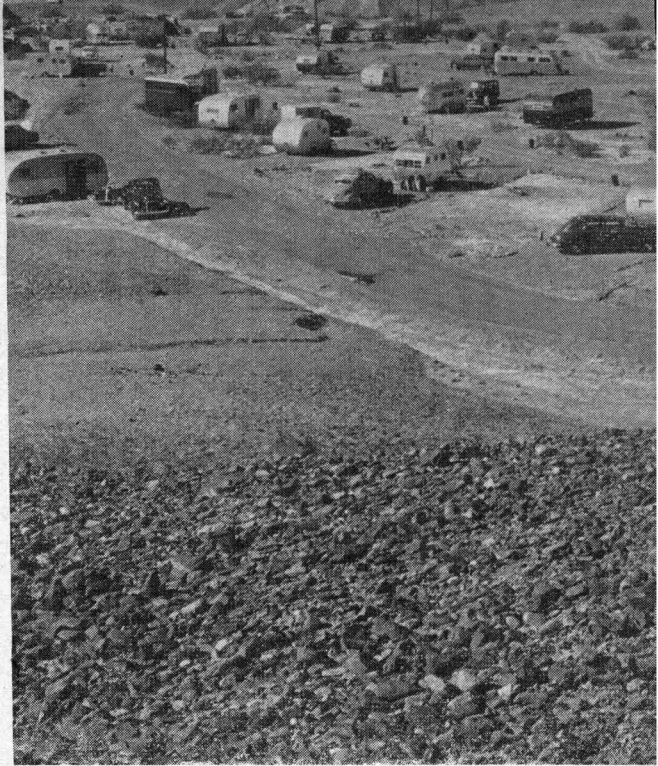
Canada added Waterton Lakes National Park to Glacier National Park in the United States for the world's first International Peace Park. Mexico has an opportunity to create the second such international park, by setting aside land for a Mexican park across the Rio Grande from Big Bend.

C. M. GOETHE

It is hoped that Mexico eventually will add acreage south of the border to form a Big Bend International Park. Another international monument has been proposed at Coronado National Memorial on Coronado Peak in the Huachuca Mountains near Bisbee, Arizona, to honor the Spanish explorer who crossed over from Mexico into the United States more than 400 years ago.



John Hilton (right) and Emil Morhardt entertained the visitors at the Artists' and Photographers' breakfast on the golf course at Furnace Creek Inn.



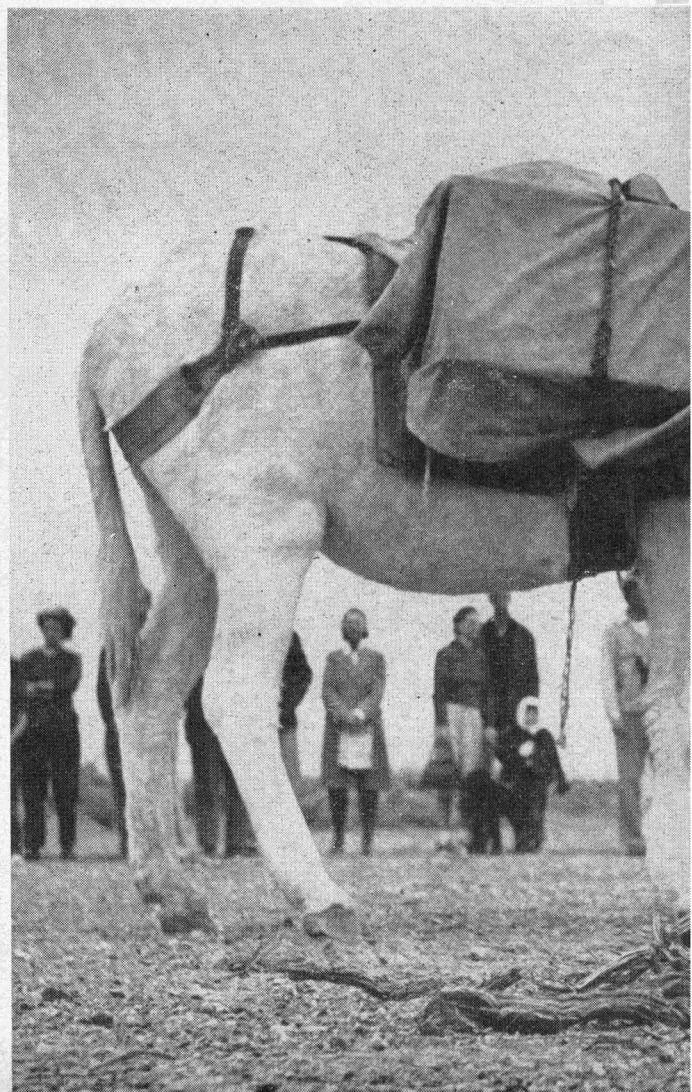
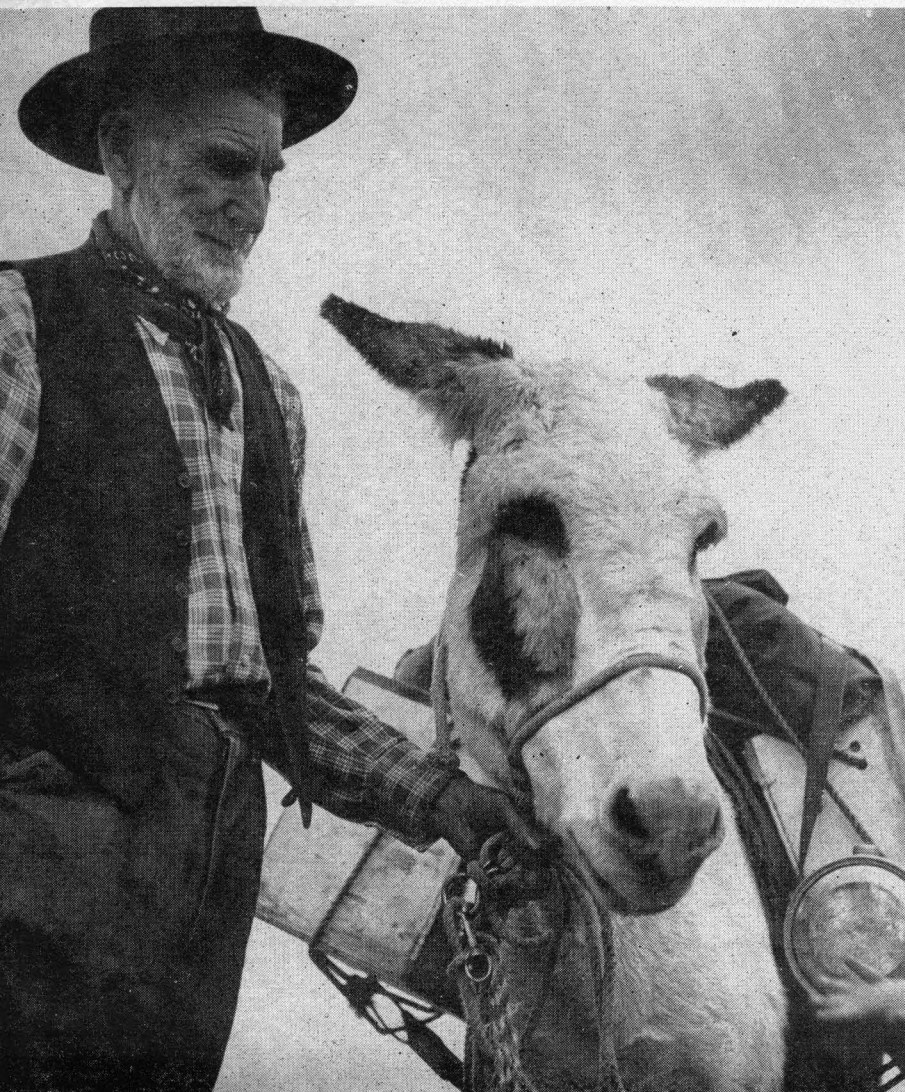
Texas Spring public campground, maintained by from Furnace Creek Ranch. Campfire natural amphitheater adjoining



1953 ENCAMPMENT OF

Photos by William Belknap, Jr., Boulder

Les Spell of Twentynine Palms, first place winner in the Burro-Flapjack contest for the most authentic prospector's attire, and the best pack on his burro, Pinto.



Charley Mitchell and his burro, Lady, sponsored won second place in the costume and pack starting his fire preparatory to co



*the National Park Service not far
programs were held in a
the camp ground.*



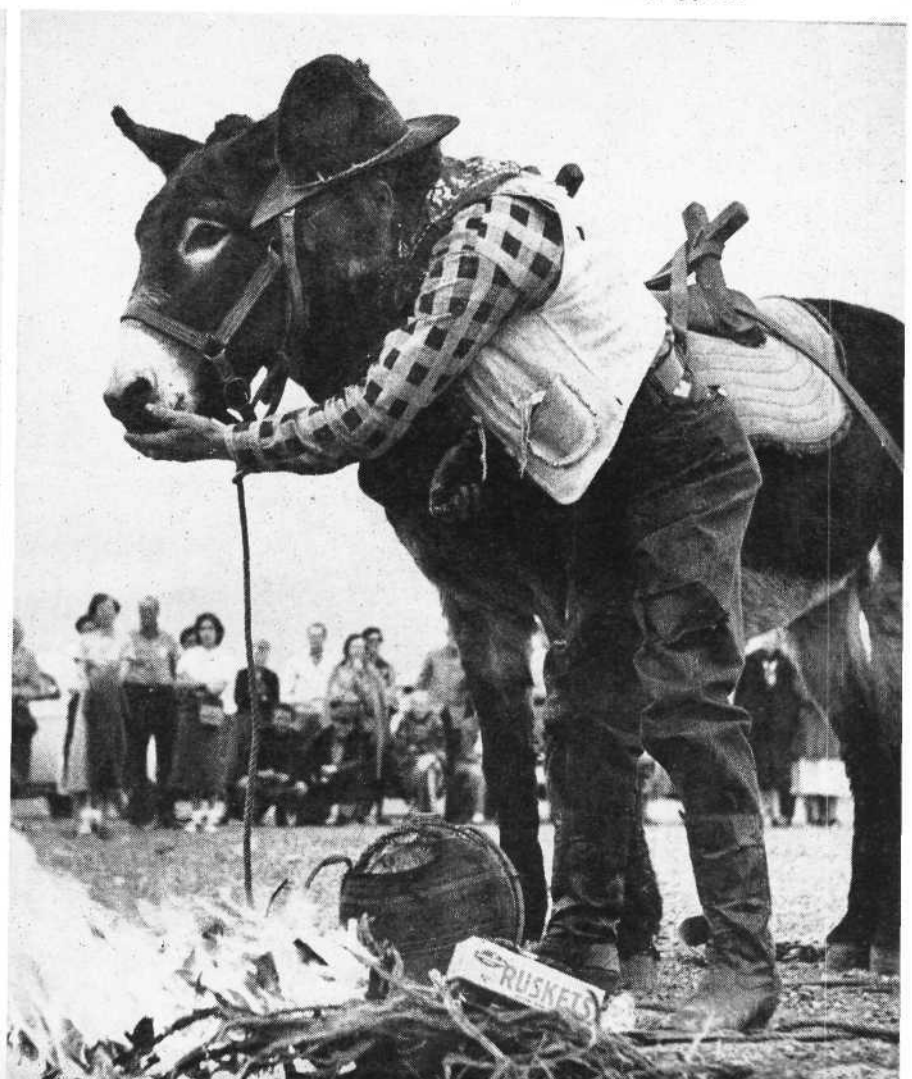
*George Savage (right), newly elected president of the
Death Valley 49ers, greets Senator Pat McCarran of
Nevada at the dedication of the Death Valley airport.*

DEATH VALLEY 49ers

City, Nevada

*by Barstow chamber of commerce,
contest. Here he is shown
aking the flapjack.*

*Dude Sands, Knott's Berry Farm entry and his burro
Judy, were the winners of the Flapjack contest. Picture
was taken as the burro finished the flapjack.*



LIFE ON THE DESERT

By HELEN PRATT

Helen Pratt is an interested audience to the desert wildlife which shares the sands of her Moonlight Valley Ranch near Victorville, California. One of her favorites is the collared lizard. Here she tells of her brief acquaintance with a female collared and her careful study of the lady lizard's young.

LATE ONE spring day in 1945, upon one of the frequent ramblings over my ranch, my attention was attracted by a drab little female collared lizard. She was scurrying along from one Joshua log to another, apparently searching for something. Taking precautions not to frighten or disturb her, my curiosity became aroused and I decided to follow and watch. She hurried busily over the sand for some distance, nosing about under this and that fallen limb until, to my surprise, she suddenly stopped, selected with infinite care a spot beneath a large wind-broken Joshua limb and began diligently to hollow out a shallow hole. In this she deposited four small pea-like eggs, very carefully covering them with sand. Having thus terminated her maternal obligations, she hurried away, giving me a side-long suspicious glance, as if daring me to disturb the nest. I knew as well as she that in the warm summer sunlight those tiny creatures would hatch and their drama of life on the desert begin.

The male collared lizard is perhaps the most beautifully marked of the lizard family, although they vary in color. Some are of a yellowish pale gray or bright green which blends remarkably well with the desert background of the regions they inhabit. The back and sides are covered with numerous white or yellow patches. Back of the head there are two jet black bands which are separated by a space of pale yellow or white, forming a double collar which is his main distinguishing feature.

In late spring when the desert sands are sparkling white under the sun's bright rays, Mr. Collared may be seen performing his courting dance in a quaint and amusing fashion. With the pouch of his brightly colored throat enormously puffed out he waltzes and cuts fantastic curves and capers, strutting and preening himself in a grandiose manner. The female appears to be altogether indifferent, paying little attention to his ardent wooing. She seems to realize that she is less brilliant and discretely stays in the background. Her markings are light gray, sometimes a drab clay shade, and by comparison she is dull.

The spring had been damp and cold. The rain-gods had been much too generous and the king of the winds had swept mercilessly over the spot where

the four tiny eggs lay patiently awaiting the arrival of the days when the warm sun would bring them life. I began to be anxious and decided to investigate. Cautiously I returned to the nest and carefully uncovered them. There, beneath the cold damp sand, apparently lifeless, lay four baby collareds. I dutifully re-covered them and replaced the log, hoping they could survive. Several days later the sun came out gloriously warm to keep his promised vigil over the small charges entrusted to his care.

When the days became quite warm, I once more visited the baby lizards' birthplace. I somehow felt a deep sense of responsibility to the drab little mother who no doubt knew that I had watched on the day she placed them there. Anxiously peering over the log I saw no trace of the nest in the sand. My four little treasures had disappeared! In my disappointment I began to look about, hoping to find some clue, when quite suddenly they appeared, first one, then another, saucily perched upon the top of the log, sunning themselves proudly. Glittering little rascals they were.

As I watched, they began to play. Two of the males gingerly approaching each other side-wise, tom cat fashion, arched their brightly colored back and with their iridescent throat pouches puffed out, giving them a most amazingly savage appearance, they began what was supposed to be a terrific battle. The "fight" consisted of a few nips and bites until one, considering himself the victor, scampered under the log, completely out of sight leaving the other to stare in amazement until back he dashed ready for another savage encounter. This was repeated again and again until one disappeared entirely.

When I cautiously approached the other, he darted away and jumped behind the log, quickly returning to pop his blunt nose just over the top, then his head, his black beady eyes watching me with a reptilian stare. A slight movement on my part and he ran quickly to another vantage point and repeated his stare, as if daring me to follow him.

I had purposely brought along my snood—a fishing rod and reel with a loop, or snood, at the end of a wire which can be quickly slipped over the head of the lizard taking care not to hurt him. It is no simple task to catch

one since they are extremely alert and agile, and much patience is required. But when just the right moment arrives it can be done.

When he again tempted me and ventured too near, I was too quick for him and, to his astonishment, I slipped the snood over his short stout little body and held him struggling, jumping and whirling about in his efforts to get away. As gently as possible, I lifted him into the creel, closing the lid and releasing him from the snood. I carried him home in order thoroughly to study his habits for a time, then one day I reluctantly took him back to the old log and watched him run just as fast as his long legs could carry him. And he was gone.

These desert nomads grow to a length of twelve inches. The newly hatched collareds are about two inches in measurement and their coloring is more brilliant than the adult. Their diet does not consist entirely of insects. The tender buds of the spring wildflowers are a delicacy, and the waxen white blossoms of the Yucca and Joshua trees attract them because of the insects upon which they most often feed.

I have watched this lizard lying motionless along these flowering stalks, patiently waiting for some unwary fly or gnat to approach. When the unsuspecting insect ventures too near, the lizard, with amazing rapidity, flashes open his mouth and the unfortunate victim disappears. This instantaneous action is almost unbelievable in its lightning-like swiftness.

These saurians are also cannibalistic at times and are perhaps the greediest of all lizards. This reptile has been known to swallow spiny horned lizards. Frequently its voracity also causes its destruction. With a brother lizard caught in its throat the collared dies an ignoble death.

The collared is a savage little creature when cornered. It will turn upon its foe with menacing jaws open, long tail poised to strike, but only at such times does it become bold and pugnacious. At other times it runs and hides. It has no poison.

The body is short and stout and the head is large, the hind legs exceptionally long. When running and jumping it uses the hind legs only and moves in an upright position, in a manner somewhat like the kangaroo.

Fabulous Desert Rat . . .

Photo—Death Valley Scotty in the doorway of the palatial home built for him by the Johnsons. Frasher's Photo.

DEATH VALLEY SCOTTY is dead—and the memory of the West's most famous desert rat will remain as long as the fabulous Castle in which he spent his last days.

Walter E. Scott passed away at the age of 81 on January 5 as he was being rushed to a hospital at Las Vegas for treatment of the gastro-intestinal hemorrhage which had stricken him. Two days later he was buried, as he had requested, on the hill overlooking Scotty's Castle. Services were held in the music room at the Castle, with Ray Goodwin, superintendent of the Death Valley National Monument, long-time friend of Scott, in charge.

A native of Kentucky, Walter Scott came West when he was nine years old, and by the time he had reached his teens had worked in Nevada herding mules and in Death Valley as waterboy for a surveying crew. Then he became a cowhand, and between jobs packed and prospected in Nevada and California.

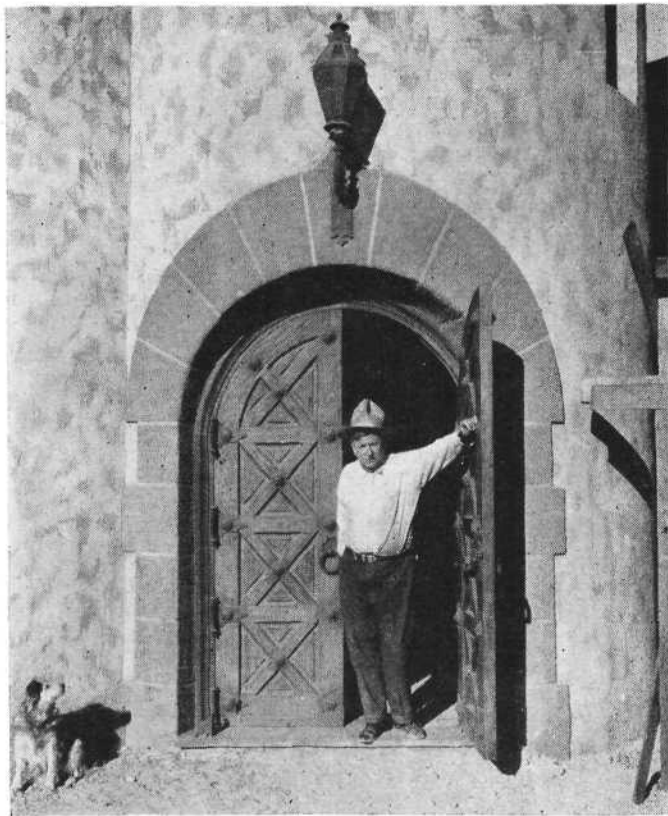
Scott was a showman at heart and when he was 18 he joined Buffalo Bill's Wild West Show and adopted the moniker which remained with him through life—Death Valley Scotty. He trouped with Buffalo Bill until 1902, and about this time became acquainted with Albert M. Johnson who had been seriously injured in a train wreck, and who wanted to go West to recoup his health.

They came West together, and as companions on desert and mountain trails cemented a friendship which in later years, after Johnson became a multi-millionaire, provided Scotty with almost unlimited funds. Johnson was the mysterious "gold mine" to which Scotty often alluded—until a series of court actions in the early '40s revealed the truth of the Johnson-Scott partnership.

Scotty's first bid for fame came in 1905 when he chartered a special Santa Fe train at a reported cost of \$5500 to take him from Los Angeles to Chicago in 46 hours—faster than any train had previously made the trip. The actual running time was 44 hours, 54 minutes.

From that time until his death, Scotty's extravagances—his hundred dollar tips, his huge roll of greenbacks, and finally the construction of the three million dollar Castle in Death Valley—insured big newspaper headlines whenever he felt inclined to talk with the reporters.

To protect himself against any claims which might be filed against Scotty, Johnson several years ago secured a default judgment for \$100,000 against Scotty and also a waiver from Scott himself of any claims for grubstake remuneration. Johnson died in 1948, leaving the Castle to the Gospel Foundation, a non-profit charitable organization, but with provisions that Scotty should be amply provided for as long as he lived.



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Wayne Winters, author of "The Sewing Basket's Secret," this month's lost mine feature, himself has uranium interests in the Grants, New Mexico area, where Alton Head and Jim Keeney found and lost the pitchblende bonanza described in the story.

Winters is a former press photographer and reporter who drifted into free lance writing while publishing his own weekly newspapers. He owns an engraving business in Prescott, Ariz.

Charles Gallencamp, then an archeology major at the University of New Mexico, was a member of the 1949 and 1950 field staffs investigating the fate of the Gallina Indians of north-central New Mexico and the mystery of their stone tower fortifications. Gallencamp tells the story of this prehistoric tribe—as much as is known—in this issue of *Desert Magazine*. He is a free lance writer living in Houston, Texas.

Edmund C. Jaeger, author of several books on desert subjects, and generally regarded as the dean of contemporary writers about the desert, is working on a series of feature articles to appear in future issues of *Desert Magazine*. Jaeger plans to tell *Desert* readers about some of his experiences on and off the desert trails in his never-ending study of the plant and wildlife of the arid region.

Helen Pratt, the Nature lover who relates her study of collared lizards in this month's *Life on the Desert* story, came to California 30 years ago from San Antonio, Texas. For the last 12 years, she has lived on the desert.

Mrs. Pratt and her husband are ranchers. Their Moonlight Valley Ranch is in Apple Valley near the banks of the Mojave River at the Narrows, two miles east of Victorville. There are many different and intriguing species of reptilian life to be found among the rocks of the Narrows, and Mrs. Pratt has found herpetology a fascinating hobby for which there always are live specimens to study, either in the field or briefly in a cage at home.

Reptiles have interested her since early childhood, and she often gives talks on the subject to schools and clubs. No newcomer to *Desert Magazine*, her story on tanning snake skins appeared in the July, 1942 issue.

Besides her interest in herpetology, Mrs. Pratt is a devoted rockhound and lapidary, musician and oil painter.

Desert Quiz

If you get a perfect score in this Quiz you are entitled to write an S.D.S. after your name—Sand Dune Sage. But you'll need a wide knowledge of the desert and its history to win that degree. This list of questions includes geography, botany, mineralogy, history and the lore of the desert country. A score of 12 to 14 is fair, 15 to 17 is good, 18 or over is super. Answers are on page 32.

- 1—If you were lost on the desert and wanted to find water, your best chances would be in—Digging in the sandhills . . . Following animal trails . . . Following the direction of birds in flight . . . Climbing the nearest peak for a view of the landscape . . .
- 2—Much of the present state of Nevada was once covered by—Great Salt Lake . . . A dense tropical forest . . . Lake Lahontan . . . Pyramid Lake . . .
- 3—Tallest cactus found growing in the Southwest is — Saguaro . . . Organpipe . . . Cholla . . . Prickly Pear . . .
- 4—The annual Snake Dances of the Hopi people are held in—January . . . June . . . December . . . August . . .
- 5—The Indian pueblo of Acoma is located in — Arizona . . . New Mexico . . . Utah . . . Texas . . .
- 6—Corn was first cultivated in the Southwest by—Jesuit priests who brought it from Spain . . . Spanish soldiers who brought it from Mexico . . . Prehistoric Indians, before the white men came to America . . . Homesteaders who came from the East . . .
- 7—The color of the Ocotillo blossom is—Red . . . White . . . Yellow . . . Lavender . . .
- 8—In the early days of the present century, Kayenta, Arizona, became widely known as—The home of John and Louisa Wetherill . . . A gold mining center . . . Headquarters for the Navajo Indian agency . . . An outfitting point for Grand Canyon expeditions . . .
- 9—The killing of one of the following wild animals is taboo among the Navajos — Big Horn sheep . . . Eagles . . . Peccaries . . . Bears . . .
- 10—Crystals most often found in geodes are — Quartz . . . Calcite . . . Hematite . . . Gypsum . . .
- 11—One of the following towns is not on U.S. Highway 66—Needles . . . Kingman . . . Wickenburg . . . Holbrook . . .
- 12—Most of the Kachina dolls are made by — Hualpai Indians . . . Hopis . . . Mojaves . . . Yumas . . .
- 13—Jojoba is the name given—An Apache medicine man . . . A species of cactus . . . A nut-growing perennial shrub . . . A Navajo god . . .
- 14—Charleston peak may be seen from—Tucson, Arizona . . . Ogden, Utah . . . Las Vegas, Nevada . . . Palm Springs, California . . .
- 15—Bandelier National Monument was named for a famous—Governor of New Mexico . . . Archeologist . . . Mountain Man . . . Military hero . . .
- 16—The book *What Kinda Cactus Izzat* was written by—Edmund C. Jaeger . . . Natt Dodge . . . Reg Manning . . . Edwin C. Corle . . .
- 17—The Mission Band of Cahuilla Indians own part of the city of—Gallup, New Mexico . . . Palm Springs . . . Parker, Arizona . . . Peach Springs, Arizona . . .
- 18—Mining at Ruth, Nevada, is carried on—In an open pit . . . By dredging gold-bearing gravels . . . In tunnels underground . . . By pumping mineral-bearing solutions to the surface . . .
- 19—The Kolb brothers are best known in history for their—Photographic expedition through Grand Canyon . . . Archeological work at Mesa Verde . . . Discovery of Carlsbad Caverns . . . Missionary work among the desert Indians . . .
- 20—Cactus most successfully used in making furniture is—Bisnaga . . . Night-blooming cereus . . . Hedgehog . . . Cholla . . .

Hard Rock Shorty of Death Valley



"Yep! Burros is the contrariest beasts on earth."

Hard Rock Shorty tipped his chair back, hooked his heels over the top rail on the lean-to porch at Inferno store and continued.

"Let me tell yu about a burro Pispah Bill had back in the days when he wuz minin' quicksilver over in Nevady. It was a brindle burro. Never saw one like it before or since. Ugliest animal I ever saw on four legs — an' Pispah called it Beauty.

"Beauty had the most cantankerous disposition I ever seen in a jackass. Allus wanted to do what Bill din't want 'im to do.

"One day up on the ridge headin' fer the mine a tumbleweed rolled against the burro's heels. Usually it took an avalanche to make that beast jump out of his tracks. But he didn't like to be rode, and he didn't like the direction they wuz goin' so when that tumbleweed struck 'im he whirled around and started the other way. All the time Bill wuz boundin' up an' down and yellin' 'whoa' fer all his life.

"Burro headed straight down the mountain an' all of a sudden they came to the top of a 3000-foot cliff. If Bill'd kept still like he oughta done the burro probably woulda stopped. But when Bill let out another wild 'whoa' that beast kept right on goin'—and there they wuz droppin' straight down and Bill haulin' on the reins an cussin' his burro.

"Jest as they were about to hit bottom, Pispah got an idea. He kicked Beauty in the ribs and shouted: 'Git up, yu danged ornery beast.'

"An that done it. That burro was so contrary it stopped—jest eight inches from the ground."

Driest Year in History Will Bring Few Flowers

"Unless some miraculously copious rain falls soon, our desert flowers are going to put on a very poor show this year," A. T. Bicknell, superintendent of Casa Grande National Monument, Coolidge, Arizona, wrote to *Desert Magazine* Christmas Day.

Superintendent Bicknell's prediction was echoed by other wildflower correspondents who agreed that 1953 was the driest year in history for the Southwest. Only a miracle could bring enough relief to promise even a fair showing of blossoms.

Although the desert around Lake Mead National Recreation Area is extremely dry, Russell K. Grater, park naturalist, hopes for moisture in January and February to nurture a handful of scattered sprouts discovered in a few well protected areas. "We can always depend upon some blossoms here and there in the more protected washes and canyons," he adds, "but a general flower show seems unlikely unless we receive badly needed rains."

Cacti are conditioned to drouth and probably will blossom this year in spite of the lack of rain, writes Julian M. King of Apache Junction, Arizona. But a showing of other flowers is not likely unless substantial rains fall soon.

Total 1953 precipitation recorded for the Joshua Tree National Monument area near Twentynine Palms, California, was only 1.31 inches as of December 22, compared with a previously established average of 4.52. A "radical change" in weather conditions would be necessary to bring the 1954 flower display up to that of 1953, feared Superintendent Samuel A. King. Many of the perennials and the various species of cacti can be expected to blossom, but prospects for annuals are not good.

Twentynine Palms' 1.31 inches of rain seems like a flood compared with the meager 0.09 of an inch recorded at Death Valley. "The aridity of the desert area below sea level is the lowest in its history," reports E. E. Ogston, chief ranger at Death Valley National Monument and acting superintendent in the absence of T. R. Goodwin, recently returned to his post after a year-long convalescence. Ogston believes it to be a world's record. The lack of rain also indicates a poor flower year for the valley.

Mary Beal, desert botanist of Daggett, California, still has hope. Since the Mojave Valley wildflower season starts about a month later than at lower altitudes, good rains in January and February could bring excellent flowering in March and April.

Flowers are due a month to six weeks later also in Antelope Valley, California, but, like other wildflower reporters, Jane S. Pinheiro of Quartz Hill doesn't know if there will be any this year. There has been virtually no rain, and few if any seedlings had appeared when she reported December 31. She did notice the black currants growing in the foothills were putting out new leaves.

The dunes surrounding the *Desert Magazine* pueblo, green and lush at this time last year, also have suffered from rain lack. Here, too, unless heavy precipitation falls in January and February, the flower display will not match even a fair year previously.

Last year's good beginning, one of the greenest carpets of seedlings ever seen on the desert floor, ended dismally in most areas as killing winds and a lack of late rains discouraged the small plants. A reverse is hoped for this year—an abundance of January and February rains to coax latent wildflowers into growth and late spring blossoming.



In spite of the driest year in the climatological history of the Southwest, the hardy cactus will again manage to blossom late this spring. Drouth conditions indicate a poor year for annuals unless abundant rains fall in January and February.

MINES and MINING

Moab, Utah . . .

A uranium processing mill will definitely be constructed at Moab to take care of ores in this area, Sheldon P. Wimpfen, manager, Grand Junction Operations Office of the Atomic Energy Commission assured local uranium miners. In addition, an ore sampling plant, estimated to cost around a quarter of a million dollars, will be constructed nearby. Work on the latter is scheduled to begin early in 1954, and will be in operation before the end of the year. Negotiations for the processing mill are currently under way between the AEC and Charles A. Steen, president of Utex Uranium Company. Estimated cost is between three and five million dollars.—*Moab Times-Independent*.

Eureka, Nevada . . .

Recent diamond drilling in the Adams Hill section of the Nevada property of Eureka Corporation has indicated a new ore body of excellent grade. The new ore lies a mile or more north of the Fad shaft workings and was located at a depth of about 900 feet, somewhat above the horizon where the Fad workings encountered extreme water problems. Eureka is controlled by Ventures, Limited, and associates.—*Battle Mountain Scout*.

Salt Lake City, Utah . . .

The Vanadium Corporation of America claims it has the "largest pitchblende showing in place of any mine in the United States," and D. W. Viles, vice-president, states it is the aim of the firm to make the Utah Mine "one of the largest producers in the country." Development work has been going on continuously for the past four years. The properties include the Freedom group of mining claims owned by Pratt Seegmiller and leased to V.C.A.—*Mining Record*.

Yuma, Arizona . . .

The old gold mill on Highway 80 just past the stage depot west of Winterhaven, is now producing lead and fluorspar instead of gold. The Holme-stake Mining Company began construction of the present machinery and buildings last March, and the mill went back into operation in July. "The mill now functions to recover fluorspar and remaining lead from the tailings of the old Castle Dome lead mine," reports Jim Hardy, general manager. Present production is more than 125 tons of rough ore daily by the soap flotation method.—*Yuma Daily Sun*.

Phoenix, Arizona . . .

The government's manganese depot at Wenden, Arizona, has resumed two-shift operations following the completion of new construction. Shipments to the plant are running at the rate of about 3000 tons weekly.—*Humboldt Star*.

Salt Lake City, Utah . . .

The Happy Jack mine in White Canyon, southeastern Utah, originally staked as a copper claim, has been discovered to hold some of the richest uranium ore on the Colorado Plateau. The bulk of the ore is uranite, one assay of which exceeded 90 percent in uranium oxide. The Happy Jack was originally established for copper mining. Production never ran high, so Dan Hayes, prominent mining man of the region, sold it to the Bronson and Copper Mining Company of Monticello, Utah, for \$1000. Gradually the headings were pushed forward until 200 feet in the tunnel the uranite, a rich primary ore, was struck. —*Humboldt Star*.

Blanding, Utah . . .

The biggest uranium property transaction in history, involving 196 claims in Colorado and 65 in Utah, has been announced by E. H. Sanders, president of the Four Corners Uranium Corporation of Denver, the purchasing group. Sanders said the sale price "ran well over \$1,500,000." The Utah claims included 23 in the Gramlich group in the La Salle Creek area and 42 in the Green River group of the San Rafael region on the Colorado Plateau. The Colorado claims are located about 25 miles south of Uraven, near the Four Corners.—*Las Vegas Review-Journal*.

Goldfield, Nevada . . .

Holdings of the Goldfield Deep Mines Company of Nevada went under the auctioneer's hammer in December to satisfy a mortgage foreclosure by the Newmont Mining Corporation. Lone bidder was Richard Blakey, Reno attorney, whose offer of \$25,000 on behalf of Newmont was accepted by Sheriff E. N. Kitchen, auctioneer. Involved in the sale were three lode mining claims and one fraction formerly owned by Deep Mines. They are the Florence, the Red King, the White Horse and the Fraction. Also conveyed were all the improvements and equipment on the ground, including the 100-ton mill erected while Newmont was active in this area a few years ago.—*Goldfield News*.

Salt Lake City, Utah . . .

Discovery of low grade tungsten values on the south rim of Little Cottonwood Canyon extended up to Alta has attracted the interest of International Smelting and Refining Company. To date, the best assay on the scheelite runs .02 percent—decidedly uneconomic even though there are a tungsten mill and refinery located a short distance away in Salt Lake City. However, the company plans to survey the area next spring. The find was made by a student-professor team from the University of Utah's mineralogy department.—*Salt Lake Tribune*.

Elko, Nevada . . .

Newton Crumley of Elko and Irvin Walters of Battle Mountain have taken over the old Cahill mining property in Paradise Valley and have started preparations to reopen the mine and mill. The property has been in operation off and on for many years. Walter will supervise operations.

Monticello, Utah . . .

The United States Atomic Energy Commission has extended its uranium ore buying program in the Colorado Plateau area to March 31, 1962, and has announced a three-year extension in the period during which ore from new mines will be eligible for bonus payments. The AEC's action assured uranium miners of a market and guaranteed minimum prices for their ores for nine more years. It is intended to continue the commission's program of encouraging uranium production from domestic sources.—*San Juan Record*.

Tonopah, Nevada . . .

Three years ago, Mrs. Lorena Peterson found gold near Warm Springs in the Hot Creek Range. However, after one shipment, the mine pinched out. Convinced it was good ground, she kept on prospecting and recently struck high grade float less than 700 feet east of her original discovery. Surface trenches reveal several parallel veins ranging in width from one to 10 inches. While no assays have been made as yet, pannings show both silver and gold. The veins have a southeast and northwest strike and follow a quartz dike. — *Tonopah Times-Bonanza*.

Miami, Arizona . . .

After ten years of production, the Castle Dome Copper Company mine at Miami was closed because of ore depletion. Equipment will be moved to the Miami Copper Company's Sleeping Beauty mine nearby. Castle Dome workers will be employed at the new site.—*Phoenix Gazette*.

Here and There on the Desert

ARIZONA

Indian Congress Elects . . .

PHOENIX — Joseph R. Garry, a Coeur d'Alene Indian of Plummer, Idaho, was elected president of the National Congress of American Indians at a convention held in December in Phoenix. A total of 19 resolutions, mostly dealing with federal government activity on Indian matters, were passed by the 300 delegates from 51 tribes who attended the meeting. Special attention was given to resolutions which urged the government to "go slow" in its planned withdrawal of the Indian services program. One resolution declared that every Indian child should have an opportunity for a common school education; that every Indian should have an opportunity for medical service; that an Indian job placement and relocation program be continued, and that the Indian welfare program be assisted by the federal government.—*Phoenix Gazette*.

Miners Move In . . .

SAN MANUEL—First permanent residents of San Manuel, Arizona's newest city, arrived in December. More than a dozen businesses were in operation, and nearly 400 of the first 1000 homes planned in some stage of construction. Almost \$100 million will have been spent in six years of work and planning on the town and nearby mine before one dollar's worth of copper is produced.—*Phoenix Gazette*.

Excavate Ancient Ruins . . .

NOGALES—Evidence that Indians lived here in the year 600 A.D. is being sought in excavation under way at an old village site near Calabasas School. Dr. Charles DiPeso of Dragoon, managing director of the Amerind Foundation, said he had uncovered skeletons and burial urns indicating that the village was occupied on two occasions in history. Work will continue until May. — *Phoenix Gazette*.

Uranium King Dies Poor . . .

WINDOW ROCK—The man who discovered one of the richest uranium fields in the world died penniless in a Shiprock, New Mexico, hospital. He was Dan Phillips, 60, widely known in Utah, Arizona, New Mexico and Colorado as the Navajo uranium king. Phillips discovered uranium in New Mexico, near the Four Corners region, and then lavishly spread his suddenly acquired wealth among friends and charities. He died of a skull fracture suffered in an automobile accident.—*Phoenix Gazette*.

Growth Needs Water . . .

PHOENIX—For Arizona "the end of growth is at hand" unless the state gets more water, believes Author Bernard De Voto. In an article in *Collier's* magazine, De Voto wrote that further development of the United States is based on what happens in the West—and what happens in the 11 Western states depends on just one thing — water. "Arizona's destiny depends on its getting every drop of Colorado River water," he believes, and that the destiny of the other Western states depends either on this giant river or the Columbia in the Pacific Northwest.—*Phoenix Gazette*.

Ignore Mexico Entry Fee . . .

NOGALES—New immigration regulations allow Mexico's border officials to charge \$3 for a single-entry permit but, although officials at some other ports are making the charge, the Nogales station has not chosen to do so. The Mexican Ministry of Interior explained that old regulations have

been relaxed to permit border residents to cross a short distance into Mexico without tourist cards. A clause in the new regulations makes it permissible to charge everyone \$3 for a permit good for one crossing or \$5 for a permit allowing an unlimited number of crossings in a six-month period. — *Phoenix Gazette*.



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Entries for the February contest must be in the Desert Magazine office, Palm Desert, California, by February 20, and the winning prints will appear in the April issue. Pictures which arrive too late for one contest are held over for the next month. First prize is \$10; second price \$5.00. For non-winning pictures accepted for publication \$3.00 each will be paid.

HERE ARE THE RULES

- 1—Prints for monthly contests must be black and white, 5x7 or larger, printed on glossy paper.
- 2—Each photograph submitted should be fully labeled as to subject, time and place. Also technical data: camera, shutter speed, hour of day, etc.
- 3—PRINTS WILL BE RETURNED WHEN RETURN POSTAGE IS ENCLOSED.
- 4—All entries must be in the Desert Magazine office by the 20th of the contest month.
- 5—Contests are open to both amateur and professional photographers. Desert Magazine requires first publication rights only of prize winning pictures.
- 6—Time and place of photograph are immaterial, except that it must be from the desert Southwest.
- 7—Judges will be selected from Desert's editorial staff, and awards will be made immediately after the close of the contest each month.

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CALIFORNIA

Death Valley Airport . . .

DEATH VALLEY—Death Valley's modern \$250,000 airport, only one in the nation below sea level, was dedicated at November ceremonies conducted by Nevada Senator Pat McCarran and attended by more than 1000 persons. Senator McCarran pointed out that the need for the airport had already been proven by two emergency landings made there by large military planes a week before the strip was officially opened. The dedication ceremonies marked the beginning of daily mail and passenger service into Death Valley by Bonanza Airlines.—*Pioche Record*.

Salton Sea Highway . . .

INDIO—The Salton Sea Highway Association has been formed to establish a shorter route between southern Arizona and points north of the Salton Sea. At its first meeting, attended by representatives of cities located between Los Angeles and southern Arizona, the new association elected Howard Barrett of Riverside as president.—*Yuma Daily Sun*.

Women, Children Too . . .

BLYTHE — About 80,000 wetbacks, enough to populate a large sized city, pass through the Palo Verde Valley in a year, estimates George Charboneau, head of the Blythe Border Patrol station. Not only men, but women and children too have been apprehended as illegal entrants, and about three times as many escape detection and move up the valley. Charboneau says local border patrol men have even picked up a newborn baby who, although its parents were illegal aliens, was by virtue of its birthplace an American citizen. Many wets think if their baby is born in this country they will not be deported to Mexico.—*Palo Verde Valley Times*.

Goodwin Back on Job . . .

DEATH VALLEY—Up in the remote desert wilderness of Death Valley, T. R. Goodwin has fooled the doctors and has returned to his job as superintendent of Death Valley National Monument. Goodwin was injured—supposedly fatally—just a year ago in an automobile accident while he was on duty. He was in the Las Vegas hospital for 10 months, E. E. Ogston assuming his duties while he was ill. Goodwin has been superintendent of Death Valley National Monument for 17 years and is known throughout the nation for making a major tourist attraction out of the barren desert region.—*Los Angeles Times*.

Bristlecone Pine Reserve . . .

CHINA LAKE — To protect a representative sample of the mountain flora of the region, a large tract of land on White Mountain has been set aside as a natural area by the U. S. Forest Service. About two-thirds of the area is covered by bristlecone pines which have been warped and blasted by Nature into fantastic shapes. The bristlecones of the region are believed to be the oldest pines in the world. One tree, only 26 inches in diameter, was determined to be 900 years old.—*Rocketeer*.

Choose River Park Site . . .

EL CENTRO—Lore of the legendary west, primitive scenic beauty and wildlife abundance as untouched today as it was 1000 years ago are combined in Imperial County's newly designated State park. After more than eight years of study and exploration under the State Division of Parks and Beaches a 20,510-acre site has been selected as a park in an area along the Colorado River known as the Alps of Imperial Valley. Located about 68 miles northeast of El Centro, the park is about 30 miles north of Yuma, Arizona, and 36 miles south of Blythe. The area is still almost inaccessible in many sectors and can be reached easily only by jeep. Development work was scheduled to start after January, with tideland oil funds used to develop and maintain the area and Imperial County providing access roads.—*Los Angeles Times*.

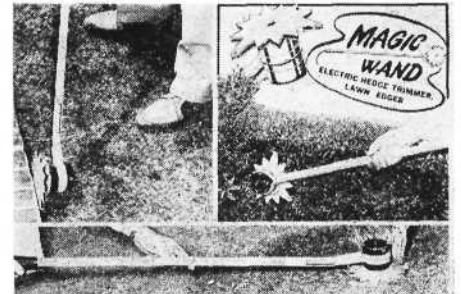
NEVADA

Largest Land Transfer . . .

LAS VEGAS—Largest transfer of land in the history of the State of Nevada was in prospect as the Defense Department announced it was prepared to pay Nevada stockmen and miners \$484,000 for land, mineral and grazing rights on the 3,000,000-acre Las Vegas bombing and gunnery range in Clark, Nye and Lincoln counties. The senate and house appropriations committees advised Defense Secretary Charles Wilson to buy outright all privately-owned lands and leased rights that the federal government holds on the range, the country's largest site of atomic testing grounds at Yucca and Frenchman's flats.—*Las Vegas Review-Journal*.

De Quille Manuscripts . . .

VIRGINIA CITY—A collection of original manuscripts of Dan De Quille, star reporter of the *Territorial Enterprise* in its youthful years, has been presented to the Bancroft Library of the University of California, one of the



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richest repositories of Western Americana. Indexed in 145 files, the manuscripts were the gift of Henry L. Day of Des Moines, Iowa, who inherited them from his father. Many are holograph copies of articles and stories which eventually appeared in the *Enterprise* and in De Quille's history of early Nevada, *The Big Bonanza*. — *Territorial Enterprise*.

New Dish for Fish . . .

BOULDER CITY—Threadfin shad will soon join the menu of bass and other fishes of the Colorado River system. Fisheries divisions of Nevada, California and Arizona have selected the shad as an ideal food fish to supplement the fishes' diet. Because this shad lives on plankton and other forms of aquatic life not eaten by game fish, it will not compete with the present fish for food. On the contrary, it will result in converting the now unused plankton into a useable form for game fish. The initial threadfin shad brood fish will be flown to Lake Mead from Alabama.—*Caliente Herald*.

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Muskrat Price Too Low . . .

FALLON—Current low prices for muskrat hides, making trapping them unprofitable, have created a problem for the Stillwater irrigation district and the U. S. Fish and Wildlife Service. Leroy Giles, fish and wildlife biologist, says it is essential that the 24,000 muskrat quota be taken off the area in order to prevent disease which might wipe out the entire rat population. Current price is about 50 cents a hide, compared to a dollar year ago. Bounty from the hides is divided between the trapper and the irrigation district. It was suggested that the irrigation district relinquish part of its share to encourage trapping.—*Fallon Standard*.

Save the Pinyon Pines . . .

ELY—The Bureau of Land Management last year issued permits for 6000 trees to be cut in the Ely area. More than 60,000 trees were taken. Nevada residents are agitating for a stronger state law to protect the state's forests. Permits are issued at 25 cents a tree, with no restrictions except that the tree not exceed six feet in height. Most of the trees are shipped by commercial cutters into California and Utah which have laws against devastation of forests.—*Reese River Reveille*.

NEW MEXICO

Sandia Man America's First . . .

ALBUQUERQUE—"Incontrovertible proof" that man existed in America 20,000 years ago—double the years of previous estimates—has been found in Sandia Cave, according to Dr. Frank C. Hibben, University of New Mexico anthropologist. Hibben said a mammoth tusk found in the cave 16 years ago established the new date after a

recently completed radiocarbon test at the University of Michigan. The tusk was found under the debris of ages with flints and other man-made litter proving that man had lived at the same time. No actual remains of Sandia Man have been found. On the top layers of Sandia Cave were found the remains of Folsom Man, dated at 10,000 years before the present.—*New Mexican*.

Call Off Food Drive . . .

CARLSBAD—When they read the figures in a Carlsbad newspaper—that the 75,000 Navajo Indians of McKinley County had a yearly income of 15 million dollars—the New Mexico Junior Chamber of Commerce decided it was "plain silly" to send food and clothing to them at Gallup, and they called off a drive to help "starving" Navajo children. The Jaycees felt they had accomplished what they had set out to do, however, bringing the plight of the children to the public and forcing action to be taken by their parents and tribal authorities.—*New Mexican*.

Zunis Protest Scout Dances . . .

SANTA FE—Zuni Indians, angered by what they consider a mockery of their sacred religious dances, threatened to appeal to U. S. Indian Commissioner Glenn Emmons and consult attorneys in protest against the dance program of a group of La Junta, Colorado, Boy Scouts. A picture story in the *Denver Post* showed the scouts imitating the sacred Shalako and Mud-head dances. Pueblo Governor Conrad Lesarley said tribal leaders are considering barring non-Indian spectators from the annual Shalako feast of dedication and thanksgiving, held late in November.—*New Mexican*.

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ANSWERS TO DESERT QUIZ

Questions are on page 26

- 1—Following animal trails.
- 2—Ancient Lake Lahontan.
- 3—Saguaro.
- 4—August.
- 5—New Mexico.
- 6—Prehistoric Indians.
- 7—Red.
- 8—Home of John and Louisa Wetherill.
- 9—Bears.
- 10—Quartz.
- 11—Wickenburg.
- 12—Hopis.
- 13—A nut-growing shrub.
- 14—Las Vegas, Nevada.
- 15—Archeologist.
- 16—Reg Manning.
- 17—Palm Springs.
- 18—In an open pit.
- 19—Photographic expedition through Grand Canyon.
- 20—Cholla.

Hit "Modified" Navajo Dam . . .

ALBUQUERQUE — A modified Navajo Dam-Shiprock Project has been recommended by the Upper Colorado River Commission—under the objections of New Mexico and Colorado. Originally the Navajo Dam in New Mexico was listed for "first phase" construction as a storage project. The revised Interior report terms it only a conservation project.—*New Mexican*.

New Navajo Manager . . .

GALLUP — Management of the multi-million dollar business enterprises of the Navajo Indians has been placed in the hands of Grover Elmore, 36, of Tucson. He is the first business manager in the history of the tribe. Elmore will take over 22 tribal industries and be responsible for development of new resources and creation of new jobs. The tribal council has allocated \$25,000 for his salary, the salary of his assistants and office expenses.—*New Mexican*.

UTAH

Oil Bonus for Christmas . . .

VERNAL — An early Christmas present was given to members of the Uintah Indian tribe when a \$370,950 oil royalty payment was made December 16. This represents a per capita payment of \$225 to 899 registered adults and \$195 each to the 865 registered children. The payment to children reflects the \$30 income tax withheld by the Uintah-Ouray agency. Adult Indians are responsible for payment of their own income tax.—*Vernal Express*.

Echo Park Dam Okayed . . .

VERNAL—Immediate construction will be sought by the Department of Interior for two of five major projects proposed in the Upper Colorado River storage project. They are the Glen Canyon Dam near the Utah-Arizona border, estimated to cost \$421,000,000 and the controversial Echo Park Dam in Dinosaur National Monument. The decision to build the Echo Park Dam came after Conrad A. Wirth, director of the National Park Service, reversed an earlier opinion and announced his support of the project, and after Undersecretary of the Interior Ralph A. Tudor had completed a thorough investigation of all the proposed damsites. "I share the concern of those who would preserve the beauties of the Dinosaur National Monument in their present natural state," Tudor said in his report to Secretary Douglas McKay, "but as between a choice of altering this scenery without destroying it in a basin which is and will remain rich in scenery, or in the

irreplaceable loss of enough water to supply the needs of a city the size of Denver, I believe the conservation of the water in the interest of the nation is of greater importance." The estimated cost of the Echo Park Dam is \$175,400,000. The dam would be 525 feet high, store 6,460,00 acre feet of water and would have 200,000 kilowatts of installed power capacity. The reservoir created by the dam would not inundate any portion of the quarry where the dinosaur skeletons have been found, it was pointed out.—*Vernal Express*.

Buttons Not Legal Tender . . .

MOAB — Three Navajo Indians were arrested for drunkenness in Delta, Colorado, and tried to pay their fine with 29 buttons they'd clipped from their wives' dresses. Judge N. E. Darrow returned the buttons after a bank refused to accept them and suspended \$29 in fines. The buttons were silver dollars which had been defaced by soldering copper loops so they could be attached to the women's clothing.

Ask Horse Case Appeal . . .

BLANDING—A San Juan County livestock association has appealed to Utah Senator Arthur V. Watkins for a Justice Department appeal of the recent decision of the U. S. District Court awarding \$100,000 to a Navajo Indian tribe for claimed loss of 150 horses. "These Indians and their stock were trespassing and in violation of a Utah court decree at the time the horses were picked up," the association argues and expresses fear that if the decision is allowed to stand it will encourage the Indians to start trespassing again. The association also terms "grossly unjust" the high price awarded for the 150 stock horses.—*Salt Lake Tribune*.

State Considers Land Trade . . .

SALT LAKE CITY—The State of Utah has made formal application to exchange all lands to which the state has any claim within the Navajo Indian Reservation in San Juan County and the Ute-Ouray Indian Reservation in Uintah and Grand Counties for lands outside these reservations. The application was filed with the U. S. Department of Interior, Bureau of Land Management, after approval by the State Land Board. If approved in Washington, D. C., the state will start collecting grazing and other fees from the 86,000 acres the users of which heretofore have paid the state nothing because they were located within Indian reservations. Revenue from the rentals will be assigned to the public schools of the state.—*Salt Lake Tribune*.



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Burnite—(azurite, malachite & copper)	
Top grade, per lb.....	6.50
Lower grade, some cutting, lb.....	1.25
Slabs, top quality, per sq. in.....	.50
Jade—(Alaska), 1/2 lb.....	6.25
Slabs, per sq. inch.....	.96
Red Plume Agate (very beautiful), lb.....	12.00
Slabs (minimum 4"), per inch.....	1.50
Mexican Agate, per lb.....	3.50
Slabs (minimum 4"), per inch.....	.30
Tigereye—Golden, per lb.....	2.40
Slabs, per inch.....	.30
Amazonite (good color), per lb.....	5.00
Slabs, per inch.....	.50
Template, sizes marked for standard cuts.....	2.10
(Mounting catalog sent upon request)	

Rough Faceting Material

1/4-lb. Sunstone.....	\$2.60
1/4-lb. Peridot, (small xls.).....	5.00
1/4-lb. Kunzite.....	3.80
1/4-lb. Amethyst (very good color).....	6.20
1/4-lb. Smoky quartz.....	3.80
1/4-lb. Topaz (small xls.).....	2.90
1/4-lb. Apatite (golden).....	6.20
1/4-lb. Garnet.....	5.00
Benitoite XI. (rare gem), each.....	4.70

For the Jewelry Maker and Collector

6 different ring stones.....	\$3.70
6 different brooch & pendant stones.....	7.30
6 different genuine faceted gems.....	7.30
6 different gen. faceted gems (larger).....	12.00

SPECIALS

Faceted hearts, gen. amethyst or topaz citrine drilled and including studs, each.....	\$2.00
Pendant with chain, gold filled or s. sil- ver with amethyst or topaz citrine hearts.....	3.75
Earrings to match, gold filled or s. silver for pierced or non-pierced ears.....	5.25
Agate marbles, genuine—large size.....	1.50
Small to medium sizes.....	1.00
Specimen boxes with 35 diff. minerals.....	1.90
with 70 diff. minerals.....	3.90
Bulk assortment of \$10.00 worth of min- eral specimens, our choice for.....	6.75

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GEMS and MINERALS

SECOND ANNUAL SHOW IN SAN JOAQUIN VALLEY

Second San Joaquin Valley Gem and Mineral Show has been tentatively sched-
uled for April 24 and 25, announces Robert
Augermeier of the show committee. The
committee has not yet decided where the
show will be held.

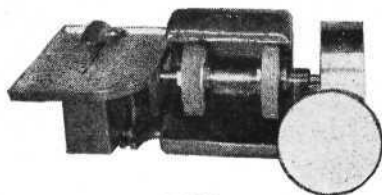
MILWAUKEE, WISCONSIN TO BE CONVENTION CITY

The 1954 convention of the Midwest
Federation of Mineralogical Societies will
be held June 24 to 26 in Milwaukee, Wis-
consin, reports the *Earth Science News* of
the Earth Science Club of Northern Illinois.
Host will be the Wisconsin Geological So-
ciety.

SOUTHWEST MINERALOGISTS SELECT MAY SHOW DATES

Southwest Mineralogists of Los Angeles,
California, have chosen May 15 and 16 as
dates for their 1954 show. As last year,
exhibits will be arranged in the South Ebell
Clubhouse, 7101 South Menlo, Los Angeles.
Hours will be from noon until 2 p.m.
Saturday and from 10 a.m. to 6 p.m. Sunday.

"Why I Didn't Collect Rocks in Georgia"
was Bill Irvine's topic when he spoke to
fellow members of Compton Gem and
Mineral Club, Compton, California. He
said he was so busy visiting old friends, he
had no time to look for minerals.



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TEXAS FEDERATION SETS GEM AND MINERAL SHOW

Dealers, rockhounds and pebble pups are
invited to attend the 1954 convention of
the Texas Federation of Mineral Societies,
to be held May 14 to 16 in Odessa, Texas.
Host society will be the West Texas Gem
and Mineral Society. Inquiries regarding
the convention should be directed to Bob
Stegner, Box 3587, Odessa, Texas.

ROCK SHOW MARCH 6-7 IN HAYWARD, CALIFORNIA

Mineral and Gem Society of Castro Val-
ley, California, will hold its sixth annual
rock show March 6 and 7. Exhibits will be
in the Hayward High School. For the first
time this year, the Castro Valley group is
inviting dealers to participate.

The sales table is still a popular feature
at Hollywood Lapidary and Mineral Society
meetings. Twenty-three specimens were
sold at the November meeting.

At the November meeting of the Min-
eralogical Society of Arizona, Carroll Mills
described zinc ores and their uses. Annual
production of zinc in the United States is
565,000 net tons, he said, of which 36 per-
cent is mined in the West. Second speaker
of the evening was Moulton B. Smith who
showed slides illustrating the geology of
the middlewestern states.

A free one-year subscription to *Lik 'n Lap*,
bulletin of Coachella Valley Mineral So-
ciety, was offered in a contest which closed
January 1. Contestants were to identify
mineral specimens described in the Decem-
ber issue.

November field trip for San Fernando
Valley Mineral and Gem Society was to the
Cady Mountains.

Dr. Rodney H. Gale, physical science
instructor at Pasadena City College led the
December field trip of the Mineralogical
Society of Southern California. The group
visited the borax deposits of Lockwood Val-
ley. Gypsum, howlite and radiating cole-
manite were collected.

The new work-study group of Delvers
Gem and Mineral Society of Downey, Cali-
fornia, has been named the Rockriders.
Purposes of the group are: 1) To gather
practical knowledge of the various phases
of the rockhunting hobby; 2) To aid new
members through instruction; and 3) To
provide program aids and field trips for
the society.

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MINERALIGHT SL-2537

All purpose lamp, operates on 110V AC, weighs only 1 lb. \$39.50

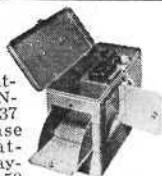
MODEL TH

Has bulb rated at 1000-2000 hours of use with 90-day guarantee. Includes a transformer with switch for continuous high efficiency. Price \$19.50. Model H is similar, same bulb, except has resistance cord instead of transformer. Approximately 1/2 the intensity of the TH. \$12.50



FIELD CASE No. 404

Contains special battery circuit for MINERALIGHT SL-2537 or SL-3660. Case holds lamp, batteries, built-in daylight viewer. \$19.50 (Plus Bats. \$5.00) Complete: SL-2537, 404 Case and 2 Batteries \$64.00.



MODEL M-12

Completely self-contained, battery operated, weighs only 3 1/4 lbs. \$39.75 plus battery (90¢)



DISPLAY & EXHIBIT UNIT MODEL XX-15 LONG WAVE

A high quality 110V AC lamp giving excellent intensity and coverage for mineral sample exhibits and displays. Price \$37.75. Other multiple-tube models available.



MODEL SL-3660—LONG WAVE

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Some materials fluoresce to short wave lengths and some to long wave lengths. Others will react to both wave lengths but with different color responses. Although practically all commercially important minerals (the ones that have real monetary value) are activated by short wave, many collectors specialize in the more unusual long wave minerals.

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Ultra - Violet MINERALIGHT rays show them in all their exciting colors—permit you to recognize what you find in the field. Mineral sets are available at only \$2.50 per set of 10 specimens, carefully packaged in foam plastic.

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Hankammer Redlands Covington Lapidary Engineering 1st & Hwy 99 Riverside Hurrie's Gem Shop 3825 7th St. Sacramento MacClanahan & Son 3461 2nd Ave. Ivan Ozden 520 56th St. San Bernardino Greenwood's 455 Third St. San Carlos Lloyd Underwood, 1027 E. San Carlos Ave. San Diego Gem Arts: 4286 Marlborough	Plummer's Minerals 4720 Point Loma Ave. Superior Gems & Minerals 4665 Park Blvd. San Francisco Leo Kaufmann 729 Harrison St. San Gabriel Rainbow Gem Company 546 W. Mission Dr. Sequel Thompson's Mineral Studio P.O. Box 124 South Pasadena Dunham Economy Concentrator Co. 853 Mission St. COLORADO The Gem Exchange Gem Village, Bayfield Black Light Corp. of Colorado 209 Johnson Bldg., Denver Riley's Reproduction 1540 Glenarm Place, Denver Shelden's Minerals Agency 307 14th St., Denver Eckert Mineral Research 112 E. Main St., Florence Palmer's Lapidary & Fixit Shop 1503 N. College, Ft. Collins Bernstein Brothers 164 N. Meekanic St., Pueblo D. C.—Washington Gem Lapidary 2006 Florida Ave. N.W., Washington, D.C. FLORIDA Rock & Shell Shop 2033 Red Road Coral Gables GEORGIA Owen Hoffman N. Alexander Ave., Washington IDAHO The Sawtooth Company 1115 Grove St., Boise S. V. Higley 1718 Albion Ave., Burley ILLINOIS Tom Roberts Rock Shop 1006 S. Michigan Ave., Chicago Ret R. Latta Lapidary Equip. 254 Pearl Ave., Loves Park KENTUCKY Ben E. Clement Marion Ancient Buried City Wickliffe	LOUISIANA Riley's 423 Crockett St., Shreveport MASSACHUSETTS Schortmann's Minerals 6 McKinley Ave., Easthampton Quabbin Book House Ware MICHIGAN Int'l. Stamp Bureau 125 W. Adams Ave., Detroit MINNESOTA Nokomis Lapidary & Watch Shop 3840 26th Ave. So., Minneapolis MISSOURI Astley Ozark Shop U.S. Hwy 61-67, De Soto Craven's Diamond Shop Co. 2008 Bryant Bldg., Kansas City Cy Miller 110 E. 13th St., Kansas City MONTANA Yellowstone Agate Shop Box 4, Hwy 89, Livingston NEBRASKA Hastings Typewriter Co. 518 W. 3rd St., Hastings NEVADA Tolyabe Supply Company Gables Woodfords Cash Store, Woodfords, Calif., P.O. Gardnerville, Nev. Arthur C. Terrill 15 Water St., Henderson Rock Hollow, Last Frontier Village Las Vegas Commercial Hardware Co. 500 E. 4th St., Reno Nevada Gem Shop 335 East 4th, Reno Nevada Mineral Laboratories 336 Morrill Ave., Reno Tonopah Studio P.O. Box 331, Tonopah NEW JERSEY Para Laboratory Sup. Co. 221 N. Hermitage Ave., Trenton Westfield Lapidary & Sup. Co. 309 Hyslip Ave., Westfield	NEW MEXICO New Mexico Minerals 11003 Central N.E., Albuquerque Adobe Crafters Rt. 2, Box 341, Santa Fe NEW YORK New York Laboratory Sup. Co. Inc. 78 Varick St., New York City The Radiac Co. Inc. 489 5th Ave., New York City Standard Scientific Sup. Corp. 34 W. 4th St., New York City OHIO Akron Lapidary Co. 1095 Chalker St., Akron OREGON The Rock Market R. 1, Box 225, Eagle Point The House of Guns 111 Washington St., Garibaldi Hodge Podge Agate & Supply Shop 322 Hwy 99 S., Grants Pass Wrightway Gemcrafters P.O. Box 4, Hauser Smith's Fluorescents Rm. 311-220 S.W. Alder, Portland Dorothy's Gift Shop 4639 N. Stephens, Roseburg White's Furniture 1218 M St., Sweet Home PENNSYLVANIA Lost Cave Mineral Shop Lost Cave, Hellertown TENNESSEE Technical Products Company 19 N. Dunlap, Memphis TEXAS D & B Engineering Co. Inc. 1519 S. 14th St., Abilene Odom's Star Rt A, Box 32-C, Austin	Nixon Blue Print Co. Wilson Tower, Corpus Christi Greene Brothers, Inc. 1812 Griffin, Dallas Don A. Carpenter Co. P.O. Box 1741, El Paso Bell Reproduction Company 907 Throckmorton, Fort Worth Ridgway's 615 Caroline St., Houston Panther City Office Sup. Co. 315 N. Colorado, Midland Farquhar's Rocks & Minerals 134 Hollenbeck, San Antonio East Texas Photocopy Co. 308 N. Broadway St., Tyler UTAH Dr. H. T. Plumb 2400 Sunnyside Ave., Salt Lake City WASHINGTON Fulmer's Agate Shop 5212 Rainier Ave., Seattle Prospector's Equipment Co. 2922 Third Ave., Seattle C. M. Fassett Co., W. 7 Trent Ave., Spokane Tacoma Lapidary Sup. Co. 631 St. Helens Ave., Tacoma WISCONSIN C-C Distributing Company 3104 W. Vliet St., Milwaukee The House of Hobbies 721 W. Wisconsin, Milwaukee The Stones Throw Rock Shop 221 S. Main St., Walworth CANADA Riley's Reproductions Ltd. 630 8th Ave. W., Calgary, Alta. Milburns Gem Shop 1605 Trans-Canada Hwy., New Westminster, B.C. Cave & Company Ltd. 567 Hornby St., Vancouver, B.C. Sharpe Instruments Ltd. 6038 Yonge St., Newtonbrook, Toronto, Ont.
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SIX BEAUTIFUL cabinet mineral specimens \$5.00. Ask for free list on many others. Jack The Rockhound, P.O. Box 245, Carbondale, Colorado.

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BOOKS: Beginners to advanced. Gemology, mineralogy, geology, etc. Write today for free price list. Gem Finders, 859 North Ramona, Hawthorne, California.

PONY BUTTE Thundereggs from the original Friday Ranch in Central Oregon. \$1.25 per pound and 5 pounds for \$5.00. Hastings Typewriter Co., Hastings, Neb.

RADIOACTIVE ORE Collection: 6 wonderful different specimens in neat Redwood chest, \$2.00. Pretty Gold nugget, \$1.00, four nuggets, \$2.00, choice collection 12 nuggets, \$5.00. Uranium Prospector, Box 604, Stockton, Calif.

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Blue Banded Agates, Grape Agates, Pigeon Blood Agates, Finest cutting material 50c per lb. Petrified Wood, fine cutting material, 50c lb. Dinosaur Bone, fine cutting material 50c per lb. Very fine many colored Lime Onyx. Very fine for bookends 20c per lb. Selenite Crystals. These are separate and of all sizes and the clearest crystal known. 25c per lb. Fine Septerian Nodules, all sizes 25c per lb. Utah Picture Sand Stone in slabs at 7c per square inch, 25c per lb.
Cash must accompany orders. You pay postage. Will refund money on any goods returned within ten days.

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MINERAL SPECIMENS, cabochons and cutting materials of all kinds, western jewelry. Beautiful travertine for book ends, paper weights, spheres etc. Write for prices. Eighteen miles south of Battle Mountain at Copper Canyon, John L. James, Box 495, Battle Mountain, Nev.

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ATTENTION ROCK COLLECTORS. It will pay you to visit the Ken-Dor Rock Roost. We buy, sell, or exchange mineral specimens. Visitors are always welcome. Ken-Dor Rock Roost, 419 Sutter, Modesto, California.

WANTED: Chalk grade Turquoise. Write complete details as to quality and price. P.O. Box 5171, Phoenix, Arizona.

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MORGANITE CRYSTAL—Minas Gerais, Brazil. Shows 9 crystal faces. Approx. 4"x3"x1¼" (tabular). \$20 postpaid insured. Frey Mineral Enterprises, Box 7, Richvale, California.

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"What kind of field trip do you like?" Editor Ray Lulling asked his readers, members of Minnesota Mineral Club, in the December issue of *Rock Rustlers News*. He asked that the detachable questionnaire be returned.

Dr. Andrew Still Wallace was the November speaker for Fresno Gem and Mineral Society, Fresno, California. He discussed "History and Geology of Diamonds."

Because of the holidays, no December field trip was scheduled by Delvers Gem and Mineral Society of Downey, California. The club bulletin, *Delvings* carried several field trip maps in its December issue, to suggest mineral collecting outings for members who could get away for a trip.

Six students completed the first lapidary class of Tacoma Agate Club in November. Slabs for the school were donated and sold for five cents apiece, netting \$2.80 for the club treasury. Roy Meridian was instructor. Aubrey Porter will teach the second class, to begin after the first of the year, and a jewelry class will be conducted by Chet Barton.

"Empire Builders of the Andes" was the title of Donald Collier's talk to the Earth Science Club of Northern Illinois. He described the civilization of the Incas and the Pre-Inca tribes, illustrating his remarks with colored slides.

H. Stanton Hill spoke on "Silver Mining Problems of the Comstock Lode" at a meeting of the Mineralogical Society of Southern California. Following Hill's talk, a film was shown depicting industries and resources of the state of Nevada.

Santa Barbara Mineral and Gem Society visited the Livingston Quarry near Palos Verdes, California, in November.

Christmas party of San Francisco Gem and Mineral Society featured an exchange of gift-wrapped rock specimens. The potluck dinner party was held December 13.

DINOSAUR BONE — California beach stones—Indian artifacts. Pioneer Trading Post, 8216 Santa Monica Blvd., Hollywood, California.

"GEM OF THE GODS": Turquoise, not specimens but real gems, enough to cut a ring, pendant, bracelet, \$2.50. Orders promptly filled. Marty's Shop, Box 95, Fernley, Nevada.

FOR SALE: Beautiful purple petrified wood with uranium, pyrolusite, manganese. Nice sample \$1.00. Postage. Maggie Baker, Kingman, Arizona.

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PRIVATE COLLECTION for sale. Over 250 fine specimens. See this at 548 Nevada Hwy, Boulder City, Nevada. Lewis M. Jones.

Elections End 1953 Season for Many Mineral Societies

Glendale Lapidary Society, Glendale, California, installed new officers at its December meeting. Receiving the president's gavel was Grant Ostergard. Other offices were filled by Melvin Blackburn, first vice-president; Paul Belsher, second vice-president; Charles Mock, treasurer, and Marie Carvin, secretary. The society already has set the dates for its 1954 gem and mineral show. The event will be held May 15 and 16 at Glendale Civic Auditorium.

Officers of Oklahoma Mineral and Gem Society, Oklahoma City, for 1954 are headed by Chal D. Snyder, president. Chester L. Baker is vice-president; Mrs. George C. McRoberts, secretary; Mrs. H. T. Daniels, treasurer, and Alvin Markwell, Haskell C. Yount and D. L. Howard, directors. Mrs. C. D. Snyder is librarian, Mrs. J. C. Pavy, historian, G. C. McRoberts, parliamentarian. Committees will be headed by Mrs. H. C. Yount, telephone; Mrs. Domer L. Howard, publicity; Chester Baker, program; Linton Riggs, field trip; Mrs. Alvin Markwell, anniversary party; H. T. Daniels, convention; George Smith, juniors, and Domer L. Howard, editor of the *Rockologist*, club bulletin.

Seven new officers were chosen at the November meeting of San Diego Lapidary Society. Jim Moore is president; John Underwood, first vice-president; Lee Weatherbie, second vice-president; Erma Underwood, secretary; Tex Oliver, treasurer, and Bill Rannels, historian. Heads of standing committees—By-Laws, Parliamentary, Field Trip, Sales and Display, Hospitality, Editor and Ways and Means—were to be named by President Moore in January.

Rogue Gem and Mineral Club of Grants Pass, Oregon, held elections at its annual Christmas party early in December. Named to lead the club in its sixth year of activity were Dick C. Heater, president; Everett P. Geasland, vice-president; Bonita Spencer, secretary; Robert Spencer, treasurer, and Mary C. Ethell, corresponding secretary. To its fifth birthday party January 8, the Rogue group invited the one-year-old Illinois Valley Gem and Mineral Society and the Roxy Ann Gem and Mineral Club which would celebrate its second anniversary. The second annual Southern Oregon Rock Show will be held at the Grants Pass fairgrounds June 19 and 20, Rogue Secretary, Mrs. Geasland announced.

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Unanimously accepting the nominating committee's slate, members of Evansville Lapidary Society of Evansville, Indiana, named the following officers to serve in 1954: William Aulsebrook, president; Roy Noecker, vice-president; FanC Rumer, secretary and Glenn Hodson, treasurer. Officers were elected in November, installed in December and would begin duties in January.

At the Christmas meeting of Cheyenne Mineral and Gem Society, Cheyenne, Wyoming, officers were elected for 1954. W. H. Sigler is new president; Kirby Olds, vice-president; Mrs. Adam Wensky, recording secretary-treasurer, and Mrs. R. H. Laughlin, corresponding secretary. Santa Claus distributed gifts after the balloting, and group singing was led by Mrs. Dick Edwards.

New officers of Clark County Gem Collectors of Las Vegas, Nevada, elected in November, were installed at the annual Christmas party. Taking office were J. H. Nicholaides, president; V. J. Morris, vice-president; Mrs. Rynier Johnson, secretary; Charles Labbe, treasurer, and Charles Hamilton, trustee. One of the big events of the year for the club will be the giant Rockhound Pow-wow slated for April at Boulder Beach.

Harold Webb, field trip chairman of Southwest Mineralogists, Los Angeles, planned a group trip to Baker, California.

December field trip of the Mineralogical Society of Arizona was scheduled to the Magma Copper Company smelter at Superior. The company provides guides for its visitors and gives each a diagram showing the progress of material through the smelter.

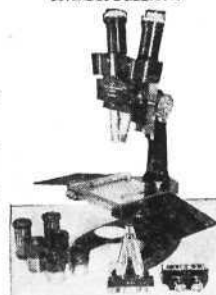
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Three-day Field Trip Planned After Convention in March

Plans are crystallizing for the giant 1954 convention of the California Federation of Mineralogical Societies, to be held March 26 to 28 at the Riverside County Fairgrounds in Indio, California. Coachella Valley Mineral Society of Indio and the San Geronimo Mineral and Gem Society of Banning are co-hosts.

Following the convention, there will be a three-day campout. Wiley Well, situated between Indio and Blythe in a highly mineralized area, will be the center of operations. Trips will radiate from there to some of the most popular rockhunting spots in Southern California.

On Monday, the main group will go to the Hauser Beds and to the Potato Patch for geodes and nodules. Twin Buttes, where amygdulites of various hues agate may be found, and Coon Hollow with its fire chalcidony are scheduled for Tuesday. Wednesday, March 31, will be the final day, and the caravan will head for Crystal Hill, Arizona, to dig for quartz crystals.

A crew will go into the field trip areas prior to the three-day campout and repair the poor spots in the road for easier and safer traveling. Desert roads are rugged at times, but with care late model cars may make any one of the trips which have been scheduled. Trips will be by caravan under capable and experienced leadership.

Material is abundant in each of these areas. Infrequently, some fine specimens are picked up from the surface by lucky persons. However, it is the rockhound who goes in with the proper tools and is willing to dig who comes out with the finest material. For any of the trips scheduled, a rock pick and a bag for carrying one's treasures are necessities. For digging, a small shovel and a matlock (army type, junior size) are convenient. Those who may wish to move any quantity of rock and dirt will need heavier equipment such as

a light weight mining pick and a larger shovel. At Crystal Hill, rockhounds who uncover a pocket of quartz crystals will appreciate having a whisk broom, cold chisel and screw driver. Those who prefer broken geodes to sawed ones should have a cold chisel along for breaking geodes along exposed seams of agate. A canteen is a good idea. Water will be available for campers at the Wiley Well campsite.

During the mineral and gem show, there will be several short field trips. These will leave the mineral show grounds in the mornings, probably by chartered Greyhound bus, and return early in the afternoon. There are several spots near enough to visit; trips will be made to any area if there is a sufficient number of persons to make up a trip.

Twenty-five acres of free camp ground will be available adjacent to the mineral and gem show area. Requests for reservations should be sent to Clifton Carney, Box 411, Desert Center, California, stating the number of people in the party and whether the party will be camping with a tent or trailer or without either. House trailers are welcome in the free camping area. If owners desire water and electric connections for their trailers, they may have same for \$1.00 per day. Open fires will not be permitted. Any standard cook stove may be used.

A western style barbecue will be the highlight of Saturday evening. Entertainment will be in keeping with the western theme. Tickets will cost adults \$1.75. Children under 12 will be charged 75 cents per plate. Barbecue tickets should be purchased well in advance from Mrs. Linnie Adrian, Banning, California. Tables will be set up inside a large building for diners. Hundreds of pounds of beef will be barbecued to serve the crowds who are expected.

The host societies will provide an ample supply of uniform cases for exhibitors. Societies are permitted to bring their own cases if they so desire, regardless of size. Exhibitors will not be penalized for displaying less than the stated maximum of 24 square feet. Cases provided by the host societies will equal, generally, somewhat less than the specified 24 square feet. It would be best for those who prefer to use convention provided cases to limit their displays to 20 square feet.

Applications for non-commercial display space will be sent out to society secretaries after January 1, 1954. All societies which are members of the California Federation are invited to enter exhibits as societies. Also, individual members of member societies are welcome to apply for space. Applications to exhibit are available from Mrs. Martha Vargas, Rt. 1, Box 366, Thermal, California. Applications must be in Mrs. Vargas' possession by March 1.

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E. Palm root	6-in. @ 35c—	2.10		.50
F. Amethyst wood	10-in. @ 50c—	5.00		1.75
G. Mahogany obsidian	8-in. @ 50c—	4.00		.75
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	46-in.	\$26.10		\$31.00

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Jeanne Martin conducted the general meeting of San Diego Mineral and Gem Society in November. Dr. Baylor Brooks spoke on the geology of San Diego County. Slides of the Grotto of the Redemption at West Bend, Iowa, were shown at the gem and lapidary division meeting; Cecil Heyn showed a movie about the discovery of oil in South Dakota at the mineral resources division session, and mineralogy division members heard John Came continue his discussion on the isometric crystal system. Bob Rowland offer helpful hints to aid the study of crystal system and Norm Dawson describe copper minerals.

John Thraillkill, a graduate student in geology at the University of Colorado and an experienced speleologist, spoke on "Cave Minerals and Formations" at a session of Colorado Mineral Society, Denver. He described and showed color photos of unusual stalactitic formations and discussed current geologic thought concerning the origin of caverns. He also criticized the needless destruction of delicate cave formations by inconsiderate mineral collectors.

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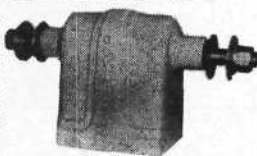
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The Chicago Rocks and Minerals Society treasury was \$210 richer after the annual auction, held in November. Meeting plans for December included a Christmas grab bag and an illustrated lecture by Dr. J. Daniel Willems on "The Story of the Gems." Dr. Willems is a well-known gem cutter and the author of a book on the subject.

Gordon Bailey arranged for the film "Hidden Treasures" to be shown at a recent meeting of Southwest Mineralogists, Los Angeles. The 45-minute movie showed microscopic plants, caverns, minerals and crystal formations found on the desert.

Another of its popular "photo quizzes" was presented by Nebraska Mineral and Gem Club at the November meeting. Slides are projected on a screen and members try to identify them. The quiz was conducted by Kenneth McDowell, program chairman, with slides by Sharpe Osmundson.

A color-sound film on gem cutting was planned for the December meeting of East Bay Mineral Society, Oakland, California. A field trip to the Guadalupe and New Almaden mines near San Jose—to search for mercury ore samples, crystals and gem cutting material—and a Christmas party also were on the month's docket.

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8" diameter by .032" thick	10.40	16" diameter by .050" thick	28.60
8" diameter by .040" thick	11.40	20" diameter by .060" thick	39.20
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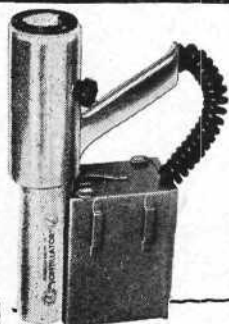
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should they be classed as synthetics," Chat-
ham told San Francisco Gem and Mineral
Society members. "They are in fact true
emeralds, made by a scientific process that
duplicates Nature's". He brought a number
of specimens for his audience to examine.

Cabochon material was exchanged as
gifts by members of Los Angeles Lapidary
Society at the annual Christmas dinner
party.

No country in the world provides better
opportunity for studying archeology than
Egypt, James E. Pullem told members of
the Gem and Mineral Society of San Ma-
teo County, California. Pullem spent seven
years with the U. S. Department of State
in the Valley of the Nile. He assisted in
the discovery of the first glazed tiles ever
made. The 1100 blue faience tiles, 7½ by
3½ inches in size, lined an Egyptian tomb.
They now are on display in the Metropoli-
tan Museum in New York. The speaker
displayed ancient examples of Egyptian
lapidary work.

Author Agnes Morley Cleaveland claims
she knows nothing about rocks, but she's
no stranger to the mining business, her hus-
band having been a mining engineer and
her son now the president of a tin company
in Malaya. She was Christmas speaker for
the Santa Fe Gem and Mineral Club.

J. M. Lukehart spoke on the manufacture
and composition of gem synthetics at a
recent meeting of Hollywood Lapidary and
Mineral Society.

Dr. G. H. Otto led an Earth Science Club
of Northern Illinois field trip to Cedar Lake,
the quarry at Kentland and the Monon
quarry. At each stop, Dr. Otto explained
the geological structure and origin of the
area and rockhounds searched for specimens,
finding fossils and dogtooth calcite crystals.

At each meeting during the winter sea-
son, a talk on some phase of the lapidary
art will be given for Minnesota Mineral
Club members. The first in the series listed
the essential tools of the simplest amateur
lapidary shop and told how beginners could
start learning cutting and polishing at
little expense.

At the first indoor meeting of the winter
season, Ray Lulling demonstrated to Min-
nesota Mineral Club members how it was
possible for beginners to grind and polish
stones with no equipment and at little or
no cost. Also on the evening's program was
a film on titania and another, "Safe Driving
and Mr. Average."

The find of the day on a recent Nebraska
Mineral and Gem Club field trip to Queen
Hill quarry was made by a junior guest,
David Brown. David split a slab of black
Queen Hill shale to reveal two perfect and
symmetrical imprints of a fish about eight
inches long. The amateur field trippers
were unable to identify it, but decided "it
looks like a trout." David presented his
twin fossil specimens to Morrill Hall Mu-
seum of the University of Nebraska where
they now are on display. Other good finds
were made by Emil Weyrich and Clark
Morgan, who discovered agatized shark
teeth. Horn corals and fine pyrite speci-
mens were found by everyone.

Delvers Gem and Mineral Society of
Downey, California, visited a Pleistocene
lake bed on its November field trip. The
area was once a lake surrounded by highly
mineralized hills and mountains. During
the Pleistocene epoch the hills and moun-
tains were eroded away, and agate and
jasper were washed into the lake. A later
period of uplift drained the lake, and
through further erosion, the material was
left on the surface. Delvers collected agate,
jasper, palm replacement and some other
wood. The field trip was the largest ever
held by the society—45 cars and 125 rock-
hounds.

"Bring Christmasy dishes," potluck chair-
men of Long Beach Mineral and Gem So-
ciety suggested for the Christmas dinner.
Each person also was asked to bring a
wrapped rock specimen for under the tree.
No field trip was scheduled for the month.

Emil Mueller, mining and metallurgical
engineer, designed a baroque tumbling mill
and told fellow members of El Paso Mineral
and Gem Society about it at a recent meet-
ing.

E. V. Van Amringe, head of the physical
science department of Pasadena City Col-
lege, spoke on "Zircon, the Gem of Mys-
tery" at the December meeting of Pasadena
Lapidary Society. The society planned a
January field trip to Boron for petrified
wood.

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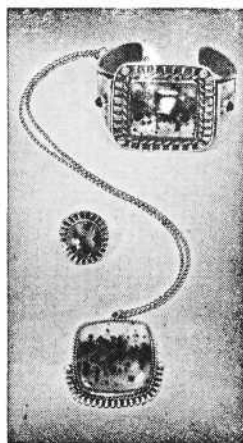
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AMATEUR GEM CUTTER

By LELANDE QUICK, Editor of The Lapidary Journal

An old time correspondent who lived in New Mexico for many years, where he did professional facet cutting, has recently removed to Boise, Idaho, and retired. H. W. Brose is his name and he recently advertised that he would offer any beginning faceters free advice. Now this is a big order and we asked him for the advice just to see what he puts out. In a few simple paragraphs he gives a lot of advice and we pass some of it along to the vast army of cabochon artists who may have been thinking about faceting, but who regard it as too expensive. Mr. Brose tells exactly what is needed.

From hundreds of letter Mr. Brose has received from all over the United States and Canada he has come to the conclusion that at least 90 percent of the amateur lapidaries are forced by economic necessity to choose the smaller combination outfits, which we have long referred to as "one man bands." However Brose refers to the horizontal outfits, which another correspondent aptly called the "one potters."

There are several such units on the market. Some include a diamond saw and some do not. Mr. Brose believes there is much to be said in favor of a separate trim saw.

"People everywhere are doing fine faceting on all of these outfits and the cost is far less than with the advanced outfits," says Brose. "My one objection to combination outfits is that they all operate at too high a speed for faceting; even with the three-step pulleys which are included. In cabochon work 1000 r.p.m. is a very good speed but in faceting 200 r.p.m. is ample.

"Now for the lucky 10 percent who can afford the more elaborate machines and for the finicky faceters who desire perfection, there are several makes on the market. They are all excellent and it is just a matter of choice and price.

"Having once decided which machine to buy it is necessary for the beginner to purchase needed accessories. He may have some of these items if he has been doing cabochon cutting. These are the needed tools:

- Set of brass dop sticks
- V-block
- 6" copper lap, diamond impregnated — 600 one side and 1200 on the other
- 6" lucite lap
- 6" tin lap
- Set of gem charts published by M.D.R. Mfg. Co.
- Millimeter gem gauge
- Alcohol lamp
- 4 ounces each of tin and cerium oxide and Linde A powder
- A stick of dop wax
- A pair of small pliers

"The beginner should have a textbook" Brose continues. "There are many on the market but I have found the following personally useful. *The Art of Gem Cutting* by Duke (\$2.00), *Revised Lapidary Handbook* by Howard (\$3.00) and *Gem Cutting* by Willems (\$4.50). (All currently available postpaid from *Desert Magazine Book Shop*). All of the faceting departments in these books could stand a little revision for I doubt if anyone would abandon a diamond lap to adopt an iron lap with fine carborundum grit."

Mr. Brose then gives some very good tips for the beginner as follows:

"If you have done no gem grinding you should do a few cabochons first. While there is a great difference in the techniques of cabochon cutting and faceting this gives a sense of balance and shaping so essential to good faceting. It also gives dopping experience.

"The quartz group of gems should be used by beginners. This group cuts well, stands rough treatment, is inexpensive, offers a wide variety of beautiful gems, of which the amethyst in all shades and the yellow citrines are the favorites. The main axis in quartz is easily determined. If the long crystals are sawed straight across like a loaf of bread is sliced the beginner will have the correct cut for the table of the gem.

"Take care of diamond laps. They are made of soft copper and easily scar. Do not run them dry or you will "burn" the gems. Hang them up when not in use.

"Wash a lucite lap each time before using.

"Never hurry; faceting is an art of patience. Always check to see if you have the correct angle and correct index settings. You cannot correct mistakes after the material has been ground away and one mistake usually means a ruined gem. (Another correspondent, Hugh Leiper, always says "grind a little; look a lot.")

"In removing gems from metal dops it is best to immerse them in cold water or place them in a refrigerator for a few minutes. By tapping lightly the gem will then usually come free.

"Beginners should work a fairly large (10 carat) round brilliant for the first stone. Saw the material into a cube about 1 mm. larger than the desired size and then grind the edges until a cylinder is formed. Mount the cylinder on a wooden dop and grind the upper part at an angle of 45° about a third of the way down the cylinder. The exposed top, called the table, should be about 40 percent of the total width and should be untouched. When this grind is finished, reverse the cylinder on the dop, at exact right angles to the table. Grind the lower part (the pavilion) to form a cone, whose point is called the culet, at the center of the cylinder. About two-thirds up from the culet grind a line around the cylinder where the crown and pavilion join. This is called the girdle. If the work has been properly done you will now have what is called a preform, which resembles two cones joined together, one of which has been truncated about half way down."

From this point on the standard cutting angles as given in available books should be consulted.

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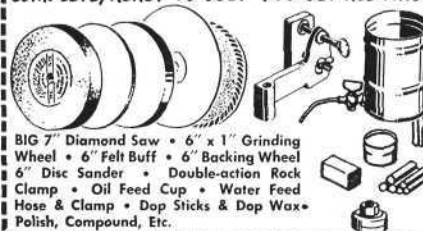
Here is a worthy companion for our larger and more expensive Hillquist Compact Lapidary Unit. The smaller in size, the Hillquist Gemmaster has many of the same features. It's all-metal with spun aluminum tub. You get a rugged, double-action rock clamp, not a puny little pebble pincher. You get a full 3" babbitt sleeve bearing and ball thrust bearing. You get a big 7" Super Speed diamond saw and all the equipment you need to go right to work.

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By RANDALL HENDERSON

DEATH VALLEY SCOTTY has gone on the long trail, and we regret his passing even though many of us did not know him personally. Scotty was a product of that fabulous age when men were still finding rich gold outcrops on the surface of the ground.

For 35 years he maintained the fiction that the gold which financed his widely publicized extravaganzas came from a hole in the mountain. But in 1941 when he had to go on the witness stand to defend himself against the claims of a former associate, he admitted that his sole source of wealth was the eccentric Albert M. Johnson who had made a fortune in insurance. Nevertheless, the legend of his inexhaustible ledge of gold persisted until the day of his death.

Scotty was a master showman, and that talent plus the friendship—and the wealth—of Albert M. Johnson were the factors that lifted an old desert rat to a lasting niche in the hall of famous western characters.

Mr. and Mrs. C. H. Smith—the “Rocksmiths”—well known to most of the mineral collectors in the Southwest, have achieved what nearly every city dweller dreams about.

They went back into the forested hills of Oregon—Applegate—is their postoffice—and built a rustic cabin of rough lumber where they really can retire from the push and pull of life in Los Angeles where C. H. was a warehouse manager for many years.

Of course one end of the 106-foot cabin is piled high with rocks—for such a hobby means even more to folks after they retire than before. They did much of the building themselves. They are fortunate people—with lots of work to do, and beauty all around to do it in.

At this writing the prospects are dim for a colorful wildflower display on the desert this season. It takes a lot of cooperation on the part of the natural elements to produce wildflowers. The sun and rain and soil furnish the food for the plant—and it is the function of the winds to scatter the seeds. If any one member of this quartet fails to play its role, or if its timing is wrong, then there'll be no wildflowers. The missing element this season is the rain.

Perhaps we will have to wait another year, or two, or three. The seeds are in the ground—literally billions of them, and Nature has secured each tiny germ of life against many years of drouth. We'll have our wildflowers later—and that's a promise.

Thanks to some of the folks who feel as you and I do about the beauty of the landscape, the crusade against roadside litter is gaining recruits. Recently the Palm Springs Woman's Club offered one of the Boy Scout troops a penny for each bottle and can picked up along the highway into Palm Springs.

A few days later, along five miles of Highway 111

between Palm Springs and Cathedral City, the boys had gathered up and trucked off 7100 tin and glass discards—and collected \$71.00 for the troop fund for their work.

Charles A. Lindbergh probably was one of the original keep-the-landscape-clean proponents. In his recent book *The Spirit of St. Louis*, telling about his historic first flight across the Atlantic to Paris in 1927, he wrote: “One sandwich is enough. I brush the crumbs off my lap. I start to throw the wrapping through the window—no, these fields are so clean and fresh it's a shame to scatter them with paper. I crunch it up and stuff it back in the brown bag. I don't want the litter from a sandwich to symbolize my first contact with France.”

* * *

Two of my companions on a recent field trip to the fire agate deposits in the Mule Mountains, California, were Clifton and Charlene Carney. Clif is the postmaster at Desert Center and Charlene is a part-time school teacher. Their home is a little cabin on a Chuckawalla Valley homestead.

As we motored along the road south of our camp at Wiley's Well Charlene caught a glimpse of a cactus growing in a nearby arroyo—a cactus that looked out of place. “I believe that was a Mojave hedgehog,” she exclaimed. “It doesn't belong down here on the Colorado Desert.”

And so we made a little detour to study the detail of that cactus. She was right as to its species—but she had not previously known that it grows on the northern Colorado as well as on the Mojave Desert.

The Carneys are fortunate people. In their spare time they comb the desert in quest of the beauty that is in stones. But their interests are not limited to minerals. In Charlene's field kit is always a copy of Jaeger's *Desert Wild Flowers*, and as she searches for gemstones she also is watching for shards and petroglyphs—for she is a student of ancient Indian life as well as rocks and botany. Clif always carries his camera, and is as much interested in the composition and coloring of the landscape as in the stones underfoot.

The Carneys live in a big world—geographically and intellectually. Not many of us can reside in a place where our front yard extends 25 miles to the next mountain range. Not everyone would want to do that, or would be willing to pay the price in personal discomfort which it involves.

But it is possible for every human in a free world to live in a big estate intellectually—with interests that range from motoring and hiking to good books, from carpentering to music, from gardening to ceramics or art or psychology.

This is a good world in which to live—despite the tyranny of its despots, the stupidity of its egotists and the fears that are born of ignorance—if we maintain a clear focus on the far horizons—and keep our sense of humor.

BOOKS of the SOUTHWEST

GOLD HUNTERS STILL SEEK LOST DEATH VALLEY MINES

For more than a century, ever since the Fortyniners made the first strikes, gold and silver have lured men into the arid barrens of Death Valley. Enduring summer heat and winter snows, facing constant perils of hunger and thirst, ever in danger of losing their way in the confusing canyons of the Funerals and the Panamints, hardy prospectors of 100 years have searched for bonanza.

Many of them found it. But, once found, a rich ledge was easily lost. There were many problems in developing isolated claims, far from water and farther from food and supplies. Often the prospector could not relocate his discovery in the maze of desert canyons, accurate as he may have believed his landmarks and carefully sketched map to be.

So, many of the richest Death Valley strikes became lost. And for these buried riches of history and legend, men still search the forbidding canyons of the world's greatest sink—now by plane and jeep instead of burro and Model T.

In *Lost Mines of Death Valley*, Harold O. Weight traces the most important of Death Valley Treasure tales to their origins, follows their histories and variations and appraises them for authenticity. He sheds new light on the famous Lost Gunsight and Lost Breyfogle mines and tells the stories of other less famous strikes.

Published by Calico Press. Paper bound, 72 pages, map, halftone illustrations. \$1.50.

WHEN THE MAJOR BROUGHT CAMELS TO THE SOUTHWEST

In 1857, Uncle Sam brought a herd of camels to the United States to be used for transportation across the Great American Desert. Although it failed, the experiment forms an interesting chapter in the history of the Southwest.

Upon this historical incident the story of *The Major and His Camels*, an illustrated book for children, is based. Miriam E. Mason tells the adventures of "The Major" and his herd of 30 camels as they travel from their native Asian desert to the American Southwest.

The easy-to-read animal story, with illustrations by Zhenya Gay, is written for children between the ages of eight and 10. Published by Macmillan Co. 130 pages, \$2.00.

TRAVEL ON HORSEBACK, BY ROWBOAT OR CANOE

Campers and outdoorsmen are familiar with the books of Ellsworth Jaeger, curator of education at the Buffalo Museum of Science. Seasoned campers as well as Scout groups and novices have found much valuable information in their pages.

Jaeger's latest book, *Land and Water Trails*, gives practical advice on outdoor travel. The land traveler will learn how to take care of horses and burros, how to ride them, what to feed them and which to use in different circumstances. The water traveler will learn the basic methods of paddling, the tricks of running rapids and ingenious ways of constructing emergency craft, from simple rafts to flatboats and skiffs.

One chapter describes useful knots for on the trail and in camp. A final section is devoted to animal tracking and methods of combatting dangerous animals met in the wilderness. The entire book is profusely illustrated with the author's clear diagrams and drawings.

Published by the Macmillan Company. 227 pages, Index, \$2.95.

POCKET FIELD GUIDE TO ROCKS AND MINERALS

In his *Field Guide to Rocks and Minerals*, newest publication in the popular Peterson Field Guide Series, Frederick H. Pough has produced a pocket book of mineral identification both comprehensive enough for the serious collector and basic enough for the rockhound beginner.

Dr. Pough has compressed an enormous body of information on rocks and minerals into the small volume, easily packed in knapsack, glove compartment or parka pocket. All the common minerals—and a few of the rare and intriguing ones—are included,

and 254 of them are pictured in photographs, 72 in full color. Crystal structures are diagramed, and simple drawings illustrate testing procedure where necessary.

While all the essential chemical and blow-pipe tests are explained, Dr. Pough has placed special emphasis on immediate identification in the field. Chapters on crystallography and mineral environments provide the basic material on which a proper visual identification can usually be made.

In addition to the photographs and crystal drawings, almost every mineral which the non-specialist is likely to encounter is described in detail. The text lists the important physical characteristics, identification tests and geographical occurrences.

Basic, comprehensive, compact, well-organized, Dr. Pough's *Field Guide* should be standard field trip equipment for every mineral collector.

Published by Houghton Mifflin Company. 333 pages, 254 photographs, 72 of them in full color, index, glossary, bibliography. \$3.75.

Books reviewed on this page are available at
Desert Crafts Shop, Palm Desert

DESERT BOOKS for children

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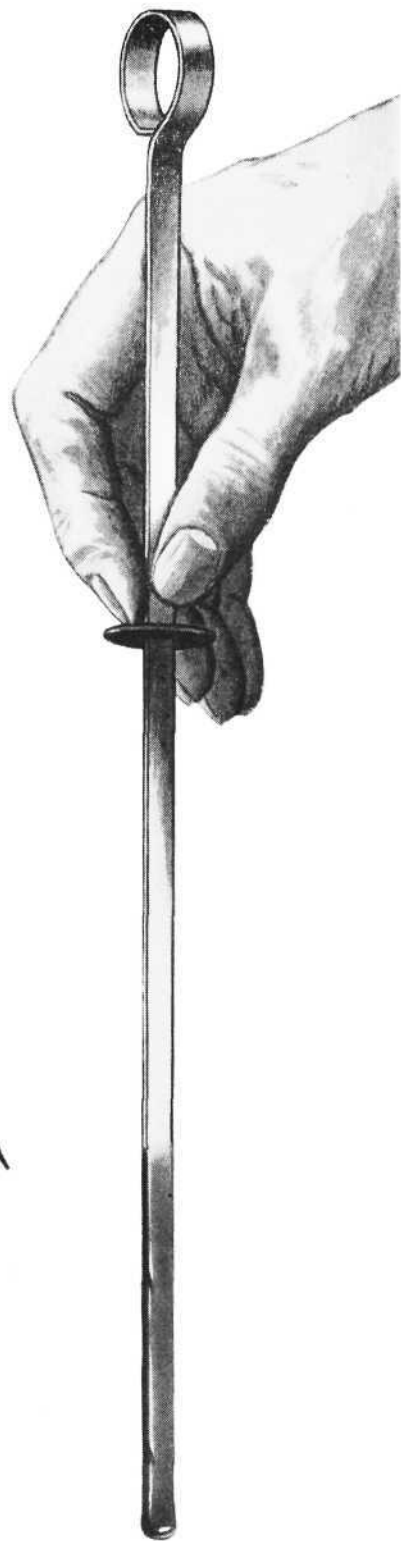
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